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CAMERA CRAFT

A Photographic Monthly

Edited by
H. D'ARCY POWER, M. D.
EDGAR FELLOES

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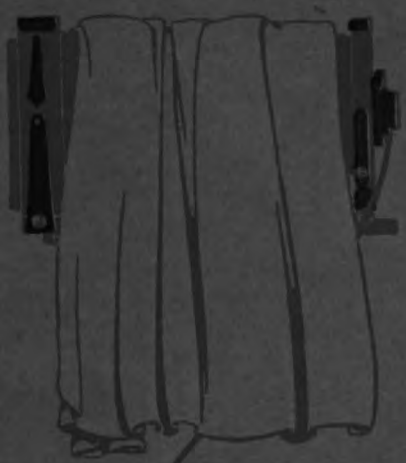

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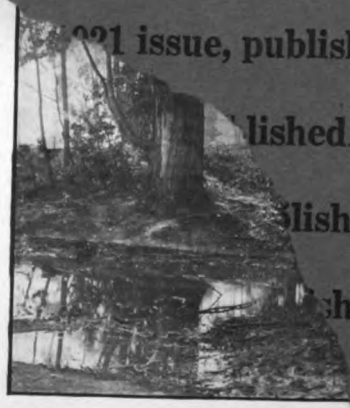

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NATURE'S GARDEN.
SAND DUNES
By EDGAR FELLOES

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H. D'ARCY POWER, M. D.
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Associate Editor

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Fascination of Animal Photography

By Stockton Veazey

Illustrations by the Author

The attention of many persons has been attracted to the interesting photographs of wild animals that have appeared from time to time in various publications and books. Radcliffe Dugmore in his "Camera Adventures in the African Wilds" has made remarkable contributions to this line of effort. The pictures made with the Roosevelt African expedition are of unusual interest. Many other collections might be mentioned.

The amateur photographer in reflecting on these achievements may have heaved a sigh that he could not have such an opportunity. Such sighs are unfounded. The rest of us "back home" enthusiasts can, if we desire, contribute our share to interesting life pictures of our animal friends, domestic, wild and semi-wild.

It is true that a photograph taken of a wild creature still wild and in its natural haunts has a fascination of its own. But all wild creatures are not found in darkest Africa or in South America. And then domesticated or captured animals that were once wild afford interesting subjects for photographic effort. This statement is based on the interest that has been shown in the accompanying prints, all of which were made by the author during odd moments of leisure, and are the result of a continued persistent interest in photography extending over some fifteen years. No special photographic vacations or trips were made but the habit of carrying a camera of some sort on many occasions has helped to secure pictures not otherwise obtainable.

The squirrel picture was made in 1914, with a 3A Graflex with 8-inch

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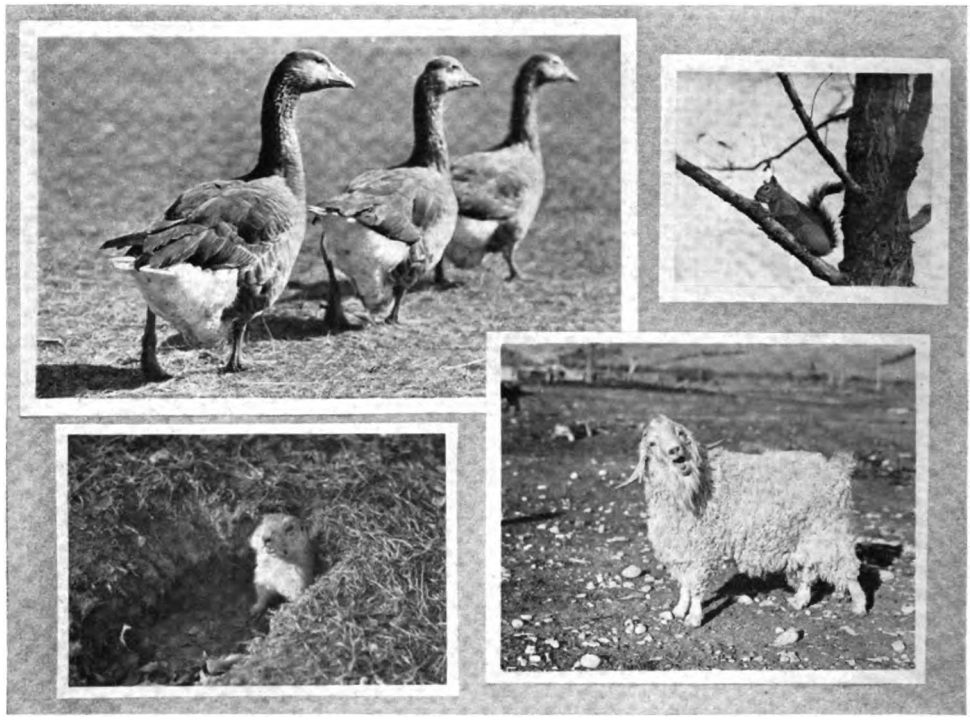

Tessar IIb lens, about 1/150 second exposure, aperture f-6.3. It took patience. The squirrel is not a very good sitter. He is as active and restless as a California flea. The little rascal is given to quick movements and remains still but little of the time. Out of a roll of six films, all made with much care, this was the only success.

The **three geese** in single file were discovered in a barnyard one afternoon. This was also made with 3A Graflex and IIb Tessar lens above described. A slight error in focussing is evident, which is something the user of a reflecting camera has to guard against. He is inclined to focus **too near.** The rear goose is in sharp focus but the others slightly out. Had the center goose been the object of sharp focus the picture would have been slightly improved.

The **goat,** with his mouth open protesting at being photographed and refusing to look pleasant, was made with a 4x5 Auto Graflex, Ic Tessar lens of 7-inch focus, exposure 1/160 second about f-8. The speed seemed necessary to stop slight motion as camera was almost upon subject. It was necessary to have an ally prod the goat in the ribs, pull his short tail and otherwise torment him into something of a different expression. We were out for no ordinary goat.

The **gopher,** looking out from his hole in the ground was recorded with same equipment as for the squirrel, and same exposure, after about an hour's patient waiting, following, watching. He came out several times but darted back before any focussing could be done. At last, after waiting at

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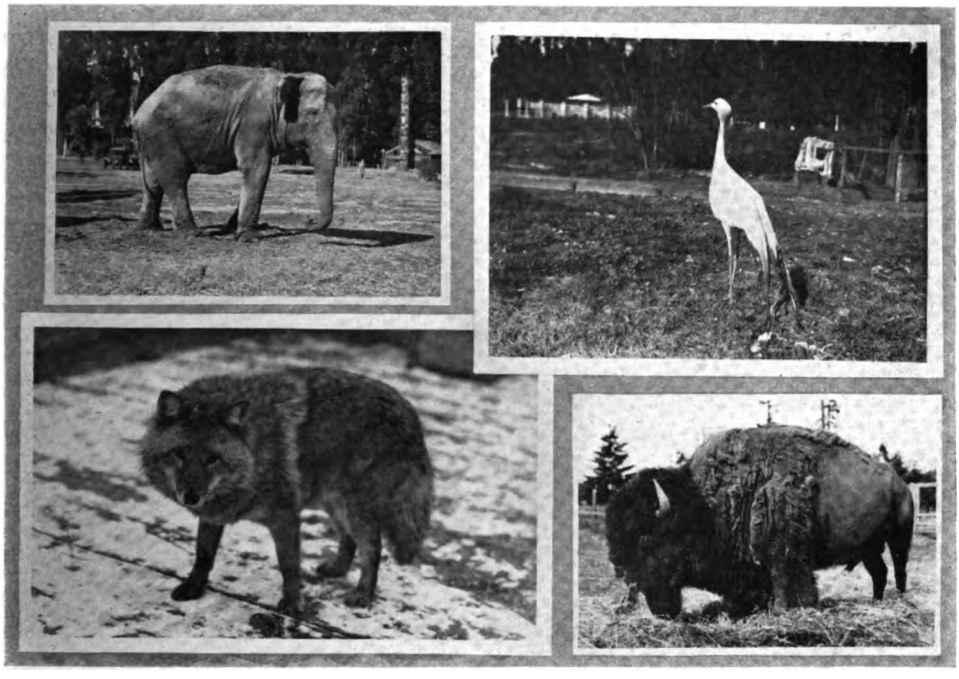

the hole with camera in position and ready, almost until the arms ached, the deed was done with the resultant bull's eye.

The coyote was taken in his pen on a cold November day, dull light, with snow on the floor. He was a friendly fellow, had lost much of his wild ideas and looked on visitors as a possible source of food. Same equipment as for taking goat. Seed 30 plate.

The elephant was at the Seelig zoo in Los Angeles several years ago. Superfluous to say the bright sun was shining in Los Angeles. It may seem easy to make such a picture but there were difficulties to surmount. First another elephant was so close his rear legs protruded into the picture, not in the least to its improvement. Then the subject came too near and if the photographer backed off, an iron railing, or maybe it was a rope, would have appeared directly in the foreground. And an elephant may not be pushed here and there at will. One has to consult **his** will. Patience won the day. Such a picture would possibly be of no interest to an artist with an impression to convey but as a photographic record of a huge beast it may pass. 3¼x4¼ Auto Graflex camera, Ic Tessar lens, 5-inch focus. Film pack.

The buffalo picture, though defective because of slight distortion, is here introduced to caution against trying for too large an image with a short focus lens. Same camera as for elephant. Beware of this, else have a lens of longer focus.

The slender silver colored bird, name and species unknown to writer, could not be posed before the background most desired and had to be taken "as was." Also the light was harsh and the resulting negative somewhat contrasty, but there remained a record of a beautiful and graceful fowl.

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Like many others, the author began photography with a very humble outfit, one of the first pocket Kodaks, which did not fold. The fascination of photography did not wear away as time went on, instead it grew, and he finally became possessed of a reflecting camera with high grade lens. Not however until some years of experience with simpler outfits had prepared him for the advanced step.

The present instrument is a 4x5 Revolving Back Graflex with long bellows, 18 inches. Lens Ic Tessar, 8½-inch focus. A desirable addition would be a convertible lense whose single element might have about 15 or 16 inches focus for far objects or for securing large images of small things like a sea gull, for example.

In the writer's experience the new portrait film is superior to anything else offered, with one objection that may be soon corrected. They are not conveniently developed in tank in 4x5 size, just yet, as no tank of this size has been made for them. The best ararngement is to use a 4x5 plate tank, putting six films in against the sides of three blank glass plates with emulsion removed. The films will stick firmly to the glass in development and are afterward separated in water.

Tank development? Absolutely. Think of all the costly experiments the manufacturers have done for your benefit. Why not avail of this?

In photographing among trees, it will frequently be found that bright sunlight is not desirable, on account of the result being "spotty." It is good practice therefore, to attempt the scene in a more subdued light, and later if necessary, to have recourse to slight local intensfication, to attract the spectator to the point of principal interest in our picture. By this means we achieve an artistic focus most gratifying to the eye, and pleasing to the sensibilities.—E. F.

Men tire of the failures who fill with their sighs the air of their own neighborhoods; there's a man who is greeted with love-lighted eyes—he's The Man Who Delivers the Goods.—Walt Mason.

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Plain Salted Paper

By Edgar Felloes

Illustrations by the Author

I have often wondered why our pictorialists have so completely ignored the plain salted paper print, it has beauties peculiar to itself, and though it is one of our oldest printing processes, yet improvements from time to time have made it capable of producing most artistic results.

When salted paper had reached a high state of technical excellence, the glossy print in the form of highly polished albumen pictures, and later the emulsion papers, were in the spotlight of popular fancy. It had become by this time second nature to go to the box for our printing paper provided by enterprising manufacturers, and we saw in quick succession many, many kinds of paper produced and offered as, the, one, best. Practically all of these have vanished, they were unstable, and I still have prints made by these much lauded mediums, that are now ghosts of their former selves.

It seems to me, it would be worth while for the more advanced workers, to familiarize themselves with the salted paper process; to be the only exhibitor in a salon, using this medium, would add quite a little interest to

"I CAN'T HELP LAUGHING"

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that particular exhibit. Of course, process, is not the important thing, but it is nevertheless a matter of interest.

With this article, I am publishing two cuts as illustrative of the fact that salted paper prints do not necessarily fade, and they need not be so dead and sunken looking as some have stated. When properly made, I believe they are permanent, and it will interest the reader to know, that these two cuts, were engraved directly from photographs on salted paper, made by me twenty-five years ago. I still have a carbon print of the laughing child, but of the two I prefer this one, printed on the salted paper.

A great advantage in this process is, we may avail ourselves of papers of various surface textures and different tints; also we may tone our pictures from beautiful warm blacks to various shades of sepias and browns and some workers have also produced beautiful reds of the red chalk order. The process is not expensive, and outside of the raw materials the whole work is done by one's self.

As to texture, we have abundant choice. If we desire much detail use Rives paper, or any pure paper of smooth surface, and with a suitable negative we can show detail equal to a modern matt surface print. Steinbach paper presents a rougher surface but is pleasing, the paper itself is, or rather was, quite moderate in price. The profile portrait here shown was printed on Steinbach. Whatman paper was a favorite with me; the child portrait was an enlargement from a snap shot, I first made a positive by contact, and projected it on another plate, which gave me the enlarged printing negative, I chose the "medium rough" Whatman, as the grain of the silver in the enlargement showed somewhat coarsely.

During the time I was experimenting on home sensitized papers, I believe I tried most of the formulas put forward by various workers of those days with varying results; I naturally had many failures, but failures are nothing; I am convinced we learn more from them than from our successes.

In looking over old prints from time to time and discarding them when they proved failures by fading and discoloration, I have learned this fact; that the gelatine used for extra sizing to give the print extra brilliance was positively harmful, the more the gelatine the less the permanency; this also applied to albumen. This lack of permanency is also shown by gelatine emulsion papers, but I have collodion papers of the same date that show no change whatever. It must be remembered I am now speaking of print out papers.

In the face of all this evidence, it would seem wise to favor a process not needing this extra gelatine sizing; let the size the manufacturers use to give strength to their product be sufficient.

The nitrate of silver did not seem to have such a bad effect on arrowroot coated paper, but I discarded this, as I thought the little advantage gained did not compensate for the extra trouble.

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PLAIN SALTED PAPER

To G. H. Moss, in a lecture given before the South London Photographic Society, about twenty-six years ago, I am indebted for the chromate of silver method, and by this method the paper was prepared on which the two now used were made; and it is my belief that their permanence is due to the

FROM A SALTED PAPER PRINT 25 YEARS OLD

entire absence of the extra gelatine sizing, for these prints had no special treatment otherwise.

We now will treat on the making of our paper. The kind selected needs to be treated in what is known as the salting bath; this is prepared in the

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following way according to the Moss formula:

Sodium chloride	150 grains
Ammonium chloride	100 grains
Potassium bichromate	4 grains
Water	20 ounces

For first attempts, adhere closely to this formula, be particular about the quantity of the bichromate salt, as the peculiarity of the whole process hinges on the restraining effect of this salt. The quantity called for here is suitable for a normal negative, if the negative is a harsh and contrasty one, reduce the bichromate to two grains, if on the other hand our negative is thin, increase this salt to six or eight grains, but printing becomes very slow in consequence.

I would advise, if our negative should need such a quantity of the bichromate as eight grains, it would be better to make the print on a contrasty developing paper.

When all the salts are thoroughly dissolved, pour the salting solution into a clean dish, and immerse the paper completely in the liquid, it should remain submerged five minutes. Turn the sheet over and break any air bubbles. After the first sheet has been in the bath one minute I place a second sheet on top and so on at one minute intervals, when the fifth sheet has been added I turn the whole pile of papers over, remove the one on the top which was the first to go into the bath, permit it to drain a moment and then suspend with clips from a string to dry, treat others in turn similarly.

While at the salting it is better to treat all the paper we are likely to need for some time as the paper will keep, if stored in a dry place. The unused salting solution should be thrown away, fortunately it costs but little.

The sensitizing solution is made as follows:

Silver nitrate	1 ounce
Citric acid	150 grains
Distilled water	8½ ounces

Sufficient of this solution should be made up to cover the bottom of tray one-half inch. The tray should be scrupulously clean, and if a worker did much work by this means the tray should be set apart for this purpose solely.

The floating of the paper, though very simple, may need a little practice. Thin paper should be experimented with at first. With thick papers I adopted the plan of holding the sheet over a basin of hot water, just to take the spring out of it. If I had several sheets to be treated I fastened a string over the bath tub on which the sheets of salted paper were suspended, then I turned on a little hot water and the paper was in good condition to sensitize in a few minutes.

To float a sheet of paper, hold it by the two corners diagonally opposite each other, that is, hold the sheet of paper by the bottom left hand corner and the top right corner, use both hands. Bring both hands nearer together

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ENCIRCLING HILLS AND A CURVING SHORE By F. E. Samuel

and your sheet of paper will hang downwards in a loop. Now lay the paper on top of the silver solution and gently lower the two hands, holding the corners and the whole sheet will float upon the silver solution. If the paper shows a tendency to curl up at the corners, breathe on them a moment, and they will immediately return to the flat position. Thin papers are not likely to give this trouble, but with thick drawing papers unless slightly dampened in the way described we may experience a little difficulty.

When floating the paper, be careful that no silver solution runs over the back of it, or it will cause a stain. Also, as soon as the sheet of paper gets limp, lift it up each corner in turn and look for imprisoned air bubbles, break these at once with a glass rod and touch the spot with a little silver solution by means of the rod and lower the sheet down again. The time for floating the paper is about two minutes, but with rough surfaces I gave three minutes. Now remove the paper carefully from the sensitizer, and in doing so lift it very gradually so that the surplus silver has time to drain off, some operators drag the sensitized sheet over the edge of the tray and hang up the paper to dry. All this work can be carried on in subdued daylight, or by ordinary artificial light with perfect safety. I need hardly remind the reader the sensitizing bath should be carefully handled on account of silver stains on hands or clothing. Rubber stalls on finger and thumb of each hand are a convenience.

The care of our sensitizing bath demands attention, that is also a very simple matter. A moment's thought will tell us that with every sheet of paper floated on the bath, some portion of the nitrate and citrate of silver is removed, it becomes a chloride and a chromate of silver on the paper with also free silver. We started with a bath of about 60 grains of silver to the ounce of water. We may work that bath down to 45 grains of silver to the

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ounce, but in my practice I always made 50 grains to the ounce my limit of dilution for this reason, if the silver solution is allowed to become weak, the salts in the paper will change the whole of the silver to the chloride and chromate; it is absolutely necessary for rich color, that free silver should be in excess, therefore keep up the strength of your silver bath.

To ascertain the strength of our silver bath, an instrument known as an argentometer is useful. It consists of a glass cylinder and a float, on the stem of this float is a graduated scale; after sensitizing our paper pour some of the silver solution into the glass cylinder, nearly fill it, now insert the float and take your reading, if the float sinks till the line at 50 shows on a level with the surface of the liquid, you will know the strength of your bath stands at 50 grains per ounce of liquid, this is only an approximate reading because there was citric acid mixed with the silver, but this reading is sufficiently accurate for our purpose. According to this then, we have deprived the bath of ten grains of silver to each ounce of liquid, let us say there were ten ounces of silver bath, then we must add 100 grains of nitrate of silver crystals to make the bath its original strength of 60 grains to the ounce.

Afteer constant use our silver bath will get discolored; simply place it in the sun and it will clear itself, filter it by plugging a funnel with a little absorbent cotton and pass the silver solution through, the cotton should be packed sufficiently tight that the solution filters itself drop by drop; it then is ready for use on another occasion.

When the sensitized paper is dry, which should have been in a fairly dark room or closet, wrap it up and store it under pressure. This paper will keep for three weeks or a month, though I made three days my limit. In fact, it was my usual practice to sensitize in the evening, and I would use the paper the following day.

There is an important item not to be overlooked in printing; either your negative should be varnished, or a sheet of thin celluloid should be interposed between the negative and printing surface of the paper. This is done to prevent the possibility of silver stains on the negative. Salt and particularly the ammonium chloride is higroscopic, and because of its affinity for moisture it absorbs it from the air. Our paper should be dry before printing, naturally, but if "bone dry" we can not get the best results; there must be a certain amount of moisture in it, hence the ammonium salt. Were I working in a very dry climate I should reduce the sodium chloride and increase the ammonium salt to that equivalent amount. There is nothing in the whole process that is difficult, care is all that is needed.

In printing we should place the frame in the shade or if a dense negative in the sun under tissue paper, and prints should be carried somewhat darker than the finished picture is to appear.

After printing, wash prints for about ten minutes in a few changes of water, this is to eliminate all free silver and the citric acid, the first wash water will appear quite milky and the washing is continued until no further

(Continued on Page 20)

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OUR WILD FLOWERS

Kindly Contributed by Our Readers

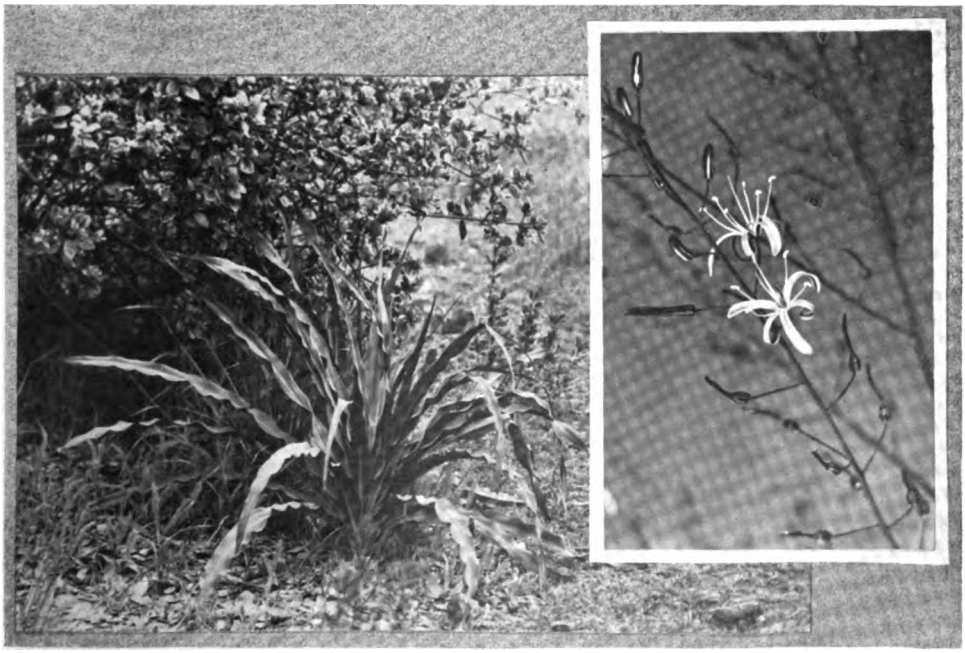
AMOLE OR SOAP PLANT

Among the many provisions made by Mother Nature for our needs, the Soap plant, growing on the hill slope and in wooded canyons, is notable. In California this plant makes its appearance in the early spring. The long, narrow leaves, somewhat resemble those of the field corn. The length of these leaves vary in different localities from eighteen inches to two feet. When mature, a tall slender blossoming stalk is sent up bearing delicate and attractive star shaped white flowers. The part of the plant, from which it gets its name, and is made use of, the bulb, consists of the smooth ivory-like layers which are wrapped in a fiberous brown coating.

We do not know how long ago the Indians discovered in this bulb the means of cleanliness but it was used as a soap in the early days of the California missions, and is still made use of by some of the older Spanish people.

The use of the bulb as soap is said to be an excellent preventative against poison oak, and many of our outdoor loving readers will find it not amiss to carry it for such a purpose.

This is one of the many wild flowers with an interesting history of its present and past value, which offers material for a world of study with the camera.—E. W. Fuller.



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Entre Nous

(Between Ourselves)

By Frances Mathilda Purdy

Illustration by the Author

The prints on the walls
Of our salons and halls,
Nicely finished in lustre or matte,
Are not always the thing
We're expected to bring—
Some are pictures we caught
"Off the bat!"

With film-pack or plate,
Long we patiently wait
For conditions, good light—
this or that—
But the picture that won
Us our "place in the sun"
Was that picture we caught
"Off the bat!"

The fine genre we snapped,
Curving shore-line, wave-lapped,
Sunny landscape (we feared
might be "flat"),
That quite notable pose,
Cloud effect, perfect rose—
Are still pictures we caught
"Off the bat!"

So we think, as we view
Each new process and hue—
You must keep this under your hat—
That, beneath its disguise
Of "soft focus,"—we're wise—
Lies the picture they caught
"Off the bat!"

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A New Lighting in Pictures

By W. Russell

With Illustrations by James E. Abbe

The moving picture industry may be credited wtih being the principal booster for artificial lighting for photographic purposes. Manufacturers of the appliances were encouraged in their research work with the knowledge that if they could produce, to meet certain requirements, the market was ready, even waiting for them.

It is not surprising, therefore, that many ingenious contrivances were put forward to meet these needs; and considerable sums of money were expended by producers in experimental work with the idea of introducing novel light effects.

Among the leading producers, striving after novelty in this line, may be counted Mack Sennett, and through his courtesy, we are able to give our readers some pictures of his famous girls under new lighting conditions.

THE FINISHING TOUCH

About six months ago, James E. Abbe, was spending some time in Los Angeles posing various screen celebrities. In that connection, he presented

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JUST A FEW OF THE FAIRIES

himself at the Sennett Studios saying he wanted to get some pictures of the Bathing Beauties. He was turned loose on the lot and took many effective photographs, all of them under artificial lighting. Abbe's work interested Mr. Sennett who one afternoon said to him, "Abbe, why can not the lighting effects you employ for still photographs be effectively used in motion pictures? " Abbe grasped at the question eagerly and explained that he had himself asked that question of all the leading producers whom he thus far had met, and said that in no case was a satisfactory answer forthcoming. He had been told that it could not be done, but when he pressed for a valid reason, none were forthcoming other than the general statement to the effect that light properly adjusted to a still subject could never be made fluent enough to follow that subject in action, and that in moving pictures the problem multiplied and became complicated in proportion to the number of figures involved.

After a discussion, it was agreed that Abbe should undertake a contract with Mr. Sennett and produce a picture lighted according to the principles that Abbe subscribed to in his still photography. It was understood, of course, that some essential compromise and adjustment would be made of the lightings in order to follow the moving figures, but that in all its

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LITTLE MISS VANITY

essentials the effects Abbe achieved in his still photographs would be found on the screen when the film images were projected. These photographs were taken by Mr. Abbe in the middle of the action of his comedy and represent with considerable fidelity just what the screen will show when his picture reaches its release.

These pictures were made in the light studio at night. Abbe used spot lights, Cleeg lights and occasionally the flood lights which are Mack Sennett's exclusive possession. These latter are arranged in batteries and shine through bluish bulbs. With his spot lights adjusted sometimes above the figures and sometimes from the floor, the artist worked for his effects until found satisfactory. The action would then be ordered and the camera would be operated.

By this method of "freak lighting" some beautiful and startling effects were produced, and in some of the scenes the characters were made to appear from nowhere. From the blackness would dart zigzag flashes of light, faintly at first, in apparent confusion, but as the action developed, the light rays would gather and fashion themselves into forms that were human. These effects were baffling and destined to make a hit, for never before has this type of lighting been employed in motion pictures.

A hint to married men: Always pack your wife's letters with your tobacco and, you won't forget to mail them.—E. F.

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Permanency of Lantern Slides

By W. J. Rodgers

We amateurs all lean toward some particular branch of photography from which we gain the most enjoyment. For my part, I have found by experience that the recording of our best work by means of prints, has through the use of what we commonly call "gas-light or developing" papers, deprived us of one "essential" and that is "permanency of print." While we might to a degree overcome this fault by exercising the greatest care in the manipulations, and through washing, I believe the best of us are prone at times to hasten through with this work, especially when we have made an unusual large batch of prints, and the hour is growing late. We might be reasonably sure of permanency were we to use "carbon" or "platinotype" paper, but there the increased cost of production, and the greater time consumed in print making, offers serious drawbacks.

Coming back to my story—my experience as a devotee of this most fascinating work, which I have followed in conjunction with cycling for over thirty years, has taught me that the conversion of one's best work, using the "Lantern Slide" as a means toward that end, has not only enabled me to let my friends enjoy the fruits of my labor, but has given me that which I most desired "Permanency" and at the same time an instinct monument of my best efforts.

If we study the beauties of nature and employ the art of coloring our slides, we add materially to the beauty of our pictures resulting in a projection more pleasing to the eye when viewed on the screen. Atmospheric effect so essential in picture making can, by the aid of color, be imparted in our picture, which otherwise is lost in black and white print.

There being many good books on the making and coloring of Lantern Slides, I shall not take up any of your time by going in great length on that phase of photography.

There is, as you know, two ways of making slides, one, if our negatives are of the exact size, by "contact printing" and the other method "reduction" by employing our camera in photographing our negatives. I prefer the latter, as my negatives are of different sizes, ranging from 5x7 down to 1⅝x2½.

The next feature is "Development"—and a very essential one too.

To those who may feel incilned to try a new, or successful formula, I shall give them the benefit of one, being a combination of two old standard formulas, which I have used for years, and found to give the results desired. I mix my stock solutions, preparing sufficient for a month's use. Use four eight ounce bottles, mixing in the exact order given. This combination gives that detail and clearness of image so necessary for projection.

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A PEACEFUL PASTURE

Stock Solution

No. 1:

Water (hot)	5 ozs.
Soda Sulphite (dry)	240 grs.
Eikenegen	83 grs.
Hydroquinone	40 grs.
Add water to make stock solution	8 ozs.

No. 2:

Water (hot)	5 ozs.
Carbonate of Potassium	240 grs.
Soda Carbonate (dry)	120 grs.
Add water to make stock solution	8 ozs.

No. 3:

Water (hot)	8 ozs.
Soda Sulphite (dry)	240 grs.
Hydroquinone	80 grs.
Potassium Bromide	40 grs.

No. 4:

Water (hot)	8 ozs.
Soda Carbonate (dry)	1 oz.

To Develope

For use:

No. 1, 1 oz.; No. 2, 1 oz.; No. 3, ½ oz.; No. 4, ¾ oz.
Water, 3 ozs. (Temp. 65 to 70.)
Increasing amount of No. 3, gives greater blacks.

The above developer has the advantage of slow working, resulting in a gradual building up of the image. After placing plate in developer one can proceed with the making of next slide. This formula works well with any make of plate. The stock solutions put up in the four parts as above will not deteriorate for thirty or more days.

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PLAIN SALTED PAPER

(Continued from Page 12)

trace of this milkyness is noticeable. The prints are now ready for toning, though a pleasing color for landscapes may be secured by simply fixing the print at this stage.

The toning bath is made up as follows and should be prepared the day before; it improves with keeping, and when not in use should be kept in a dark place.

Acetate of soda	30 grains
Chloride of gold	1 grain
Water to	8 ounces

The chloride of gold is sold in little tubes containing 15 grains; a convenient way to use it is, to have a bottle which will contain 15 ounces of water, into this, having uncorked the tube of gold crystals, drop the tube, cork the bottle, and shake it a minute or so and the crystals will soon dissolve, each ounce of this gold solution will contain one grain of gold. If we work this way we shall only need seven ounces of water instead of eight, that ounce of gold solution when added makes up the total bulk of liquid to eight ounces. As there is no surface of gelatine to penetrate, toning is very rapid and a novice at the process is almost sure to overtone, which gives a somewhat bleached picture of an unpleasant bluish cast. For first attempt then let your print be in the toning bath not more than thirty seconds, turning the print over constantly so that the gold may be evenly deposited. Immediately after toning rinse in three changes of water and transfer print to the fixing bath, which is made as follows:

Hyposulphite of soda	1 ounce
Water to make	10 ounces

Fix prints on thin paper ten minutes, on thick drawing papers, fifteen minutes. Don't use this fixing bath for too many prints, replace it, do not carry it over, mix fresh bath when again needed.

After fixing, wash prints from one to three hours, the time is dependent on the thickness of paper used. The prints dry considerably darker and the color can not be accurately judged by the new worker until the print has dried. I might here mention that the first washings of the prints may be done in hot water, which greatly help in removing hypo quickly, but too long a treatment this way makes the paper tender.

I have tred to describe the whole process of plain salted paper fully, but if any reader on experimenting should meet with difficulties which he or she is unable to overcome, they should write, and I will gladly straighten out the tangle.

If you wish to attempt combination printing start a collection of negatives on film of odds and ends you may find on a knoll. The sky forms your background, but the light must fall on your object, for you must avoid a silhouette. If you work this way and the plate is properly developed, you will have the back-ground blocked out for you; this saves a lot of work.

——E. F.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

Vol...XXVIII San Francisco, California, January, 1921 No. 1

Louis Ducos Du Hauron

The history of inventions is usually a tangled skein of ideas and experiments leading over devious ways to the final results, and when we state that this man invented the steam engine, this man the telephone and that man the airplane, we usually are referring only to the final perfection.

In the history of photography something of the same sort is manifest, and yet more than in other cases it is possible to put our finger on certain names and say without much contradiction, these are they who have made possible what we now possess. If we go back nearly a hundred years, we may point to Nicephore Niepce, and say, Here is the man who first made a photographic image and laid the basis of photo-engraving, as we practice it today; to Lous Daguerre, and say, Here is the man who gave us photographic portraiture; and when we speak of Louis Ducos Du Hauron, even more emphatically may we state, that to him almost alone we are indebted for the whole development of color as a part of photographic processes.

It is an interesting fact that whatever may be the doubt in regard to the history of discovery, that of discoverers is in no such obscurity, and one of the most notable things is that very few of them have personally benefited by their work. These thoughts arise on reading of the death of Ducos Du Hauron, who died recently in great poverty in France. When we think of the enormous capital and profits realized from photo-engravure and learn that Niepce was only too glad to receive from the French government a miserable pension of three hundred dollars a year for his rights; that Daguerre was content with very little more, and that Ducos Du Hauron, with a contribution to practical science and wealth production that is covered by the whole field of three-color printing, Lumiere plates, Paget plates and all the modifications of these that are yet to come, was given the starvation sum of two hundred and forty dollars a year, we have ground for believing that public appreciation and justice, insofar as inventors are concerned, is rather diminishing than otherwise.

What was it that Ducos Du Hauron did? As a young man of twenty-five, back in the early sixties, he perceived that the only way in which the problem of photography in natural colors could be solved, was to analyze the luminous image, register the different colored rays and by their re-combination again form a replica of a natural object. Whether this were to be by mixing the rays themselves, as we see in the Ives chromoscope, or by superimposing three color images, as is done in three-color half-tones, or by superimposition of colored films, as in the Sanger-Shepherd transparency, or by the many modifications of these fundamental methods, or lastly, by

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the entirely successful intermingling of color elements, as seen in the Lumiere autochrome, the dioptochrome and the Paget color plate, the ground principle is the same, and Ducos Du Hauron not only laid this down as a basic theory, but foresaw the various ways in which it was to be ultimately applied to give us the practical methods of today. Every inventor from that day to this has worked on his basis, and yet he himself is hardly known, even to the average photographer, and his reward was neglect and poverty. We have shown what the government did for him—the manufacturers who realized their great profits did, it is true, throw him a pittance from time to time; but the fact remains that he died a poor, almost hungry, old man. If it be asked how such a condition was possible, we have to reply, for two reasons: his thought preceded the conditions that could make it practicable, for, while he demanded color-sensitive emulsions, there were none available at that time; secondly he had no commercial ability, nor the persuasiveness to induce those who had the capital to use it in the development of his ideas, nor had he protected them from those who ultimately exploited them. In this he but repeats the story of inventors in many other fields. If there be one thing which is demanded in justice to the men who think out the future, and to the benefit of society at large, it is that the present system of patenting, or the present patent laws, be revised, and that the State be obligated to help those who are developing useful ideas, and to reward those who can demonstrate their claim to prior invention, whether the commercial application has been brought about by themselves or others. Lastly, we have to thank Ducos Du Hauron for laying down the principles of the motion picture, whose final perfection in color is again a product of his prevision.

The details of his life are unimportant to us, but its results are a stimulus to every serious worker in photography, for the problems of the present and the possibilities of the future are no less alluring than the successes of the past.—H. D'A. P.

Outdoor Portraiture

Amateurs should attempt some outdoor portraits in a more careful way than is usually done. The trouble with much of this work is "spottyness." It is difficult to give the proper relief to our subject if the background shows objects in equal prominence. Something must be sacrificed, and it would seem natural that this sacrifice should be made in the background.

To secure more satisfactory results, we must have recourse to certain modifications; our focusing must be more carefully done. We should place our subject just far enough forward of the background so that when the figure is sufficiently sharp our background appears "soft," that is somewhat out of focus. This little expedient will be found a great aid to a more pictorial result.

If it should be necessary to still further modify our negative to increase effect, we can do so by reducing contrast in portions of the background. For this purpose a little yellow color, in the form of a dye may be applied to those parts printing too darkly.—E. F.

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PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

TO OUR FRIENDS—Tell us what you know! Perhaps you have had some photographic difficulty and overcame it—how did you do it? Tell us!
Perhaps you know some photographic "kink" that others would like to know—be generous, help others; tell us what you know!
These paragraphs are yours; to be used for mutual help: let us hear from you—

DRYING FILM-PACK NEGATIVES—In your December issue, V. W. H., New Hampshire, tells us his method of drying film-pack negatives. I have a way of drying film negatives, that beats his way, a mile. Get a paper of pins, a pair of pliers, and bend the pins so they form the capital letter S; stretch one or more strings across the room, six or seven feet from the floor; hook the bent pins in a corner of the pack-films or at the end of roll films, and hang them on the strings to dry: That's all.—T. A., Colorado.

FOR THE PRESS—In my business as artist for a daily newspaper I am on occasions called upon for a picture in a real hurry. Perhaps something sensational has happened; and we need a picture for an afternoon edition; we go about it this way. The photographer with his instructions from the city editor goes to the location with his outfit; he possesses a sort of instinct that he had better not forget anything.

The plates come to the dark room, are developed, fixed and rinsed; a sheet of thin cellouloid is laid on the negative, a piece of developing paper is wetted and placed in contact with the celluloid, and a print made from it; at times an enlargement is required, this is accomplished in the usual way, but from the wet negative; the resultant print in either case after rinsing is stuck behind the copy-glass to which it adheres perfectly while wet, from this then the half-tone negative is produced.

If, on the other hand, it should be necessary to add something to the print on account of faulty negative, or to bring out certain salient features, the print must be dried. After rinsing the print it is pressed between blotters to remove surplus moisture, then it goes in a bath of alcohol which removes still more of the water; the print is lifted out of the alcohol bath, allowed to drain, and a lighted match applied, the alcohol remaining on the paper is ignited and the print is dry.—F. A. Illinois.

Theory is great as a foundation for research work, but for the average, the practical is short cut to a "full dinner pail."—E. F.

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A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Desensitol: A Remarkable Departure

After being condemned to the use of red light in the dark room for so many years, the advent of panchromatic plates added still further to the discomfort of photographers, many of whom found total darkness preferable to the very dim light in which alone such sensitive material could be handled. It must have struck many that one of the most welcome departures which could be made in modern photographic processes would be some invention by which a plate or film after exposure could be made almost, if not quite, insensitive without in any way interfering with the latent image existing in it. Such an invention would revolutionize the lighting of the dark room, and, incidentally, would give a great incentive to panchromatic work.

It has long been recognized that certain compounds lowered the sensitiveness, or at any rate the color-sensitiveness of emulsions. Recent discoveries have carried this a stage further. Very weak amidol solutions, for instance, have an effect in this direction; and another substance, a dye known as Pheno-saffranine,has proved more effective still. This, however, is not easily obtainable in this country in a sufficiently pure form, so that its use has only been experimental.

As our readers doubtless observed from an advertisement in last week's issue, Messrs. Ilford, Ltd., have now introduced a concentrated solution known as Desensitol, which allows any photographer at a very small cost to make a practical trial of development by candle light. The working solution consists of one part Desensitol made up to fifty parts with water. It has a bright red color, and is said to keep indefinitely, and can be used over and over again until it is exhausted. In this connection, exhausted does not mean that the solution deteriorates with use, but merely that it is absorbed by the gelatine and gradually used up. It is probably best to keep the desensitiser in a dark-colored bottle.

The exposed plate or film has merely to be bathed for a minute or more in the weak solution, and is then ready for development in any ordinary developer. The bathing may be done in any light with which the plate is normally safe, or, if preferred, in complete darkness. When the plate has been bathed, however, it may be exposed to candle or gas light during the course of development, but such exposure should not be more than is really necessary; as, although the action of the solution is to reduce very greatly the sensitiveness of the plate, it does not entirely desensitise it.

Our first trials were made by the light of a candle, which was about 5 feet from the dish in which the plate was developed, the plate itself being a rapid orthochromatic one, labeled 400 H. and D. The resulting negative is as clean and free from fog as another one out of the same box which received the same exposure, but was developed by the ordinary safe light in the dark room.

It is preferable to fix in an acid bath containing potassium metabisulphite, but this is not essential—in fact, in our experiments a plain hypo bath was used. After the fixing bath, even when an acid bath has been employed, the plate will be found to be stained red, and special means of bleaching it can be used; but actually there is nothing better than soaking in plain water, and the usual washing removes most of the red coloration.

In the case of panchromatic plates, the desensitising effect is not so extreme as in the case of plates which are not so color sensitive, but the action is sufficiently marked to enable them to be developed in the way described. Ordinary plates which

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are not orthocromatic can be developed in such a light as that given by an incandescent gas burner, provided this is some little distance away, and the dish is shaded from direct light by the photographer's body, or in some other way similar to that in which one would develop a gaslight print.

We reproduce the above description from the "Amáteur Photographer" and the preparation is along lines that may ultimately be of great value, but it does not seem to overcome the initial difficulty that plates must be placed in the holders, and what is worse, removed therefrom and immersed in this bath. How this is to be done without light falling on them is not made apparent. —H. D'A. P.

Combined Development and Fixing

Some few weeks ago we had occasion in a leading article to refer to the subject of simultaneous development and fixing of exposed plates. We expressed the view that for certain classes of work the matter was worthy of further attention, and that we were not alone in so thinking is evident from the appearance in the present issue of a communication by MM. Lumière and Seyewetz dealing with the same subject.

Although relatively short in length, the communication is interesting, in that it brings together all important results which have hitherto been published, and criticizes them in the light of further experiment. It is clear that prior to the work of C. Otsuki and T. Sudzuki there was no formula of any practical value for a combined developing and fixing solution. The fortunate selection by these workers of Quinomet and its use in conjunction with caustic soda resulted, as MM. Lumière and Seyewetz agree, in the publication of the first process, capable of giving anything approaching normal negatives. Further, the present communication supports the conclusion that, so long as "hypo" is relied upon to effect the fixation the results are likely to be of greater value the more energetic the developer employed. It was only to be expected that, when the present authors took up work in this matter, they would try quinomet, since, as discoverers of the product, their knoweldge of its characteristics would be unique. To them also an obvious variation would be the substitution of chloranol, which, by virtue of the chlorine atom in its hydroquinone element, is more active than quinomet. Judging by the formulae given in the communication, however, the increase of activity is not very marked; similar development times are quoted for both solutions. The times stated, viz., twenty-five to thirty minutes, seem to be quite at variance with the findings of Otsuki and Sudzuki, who, with quinomet made up almost identically as is now recommended for chloranol, obtained fully-developed negatives in about two minutes. It is well known, of course, that the time required for fixing varies enormously with different emulsions, and it is, perhaps, on this account that such a marked difference occurs between the recommendations of the earlier and the later workers.

In the present communication the use of caustic soda is deprecated, because of the uncertainty of the strength of this product, but the use of tribasic sodium phosphate is in some measure open to the same objections. The "commercial" tribasic salt is of very doubtful composition, and we would caution anyone who intends experimenting to procure the pure salt. It can, of course be made by the addition of the requisite quantity of caustic soda to the ordinary (dibasic) phosphate of soda; and, once prepared, its composition remains constant. The worker, however, who possesses the requisite knowledge and skill for the compounding of the tribasic phosphate would no doubt prefer to make up the developer with caustic soda direct, particularly when it is remembered that with tribasic phosphate as the alkali "the results are less clear" than those obtained by the use of caustic soda.

On the whole, the present communication does not perhaps take us much further than Messrs. Otsuki and Sudzuki got in 1914. No doubt MM. Lumière and Seyewetz will continue their work, using still more active developers, and we look forward with interest to the publication of any further results.

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Improvements in the Simultaneous Development and Fixing of Plates

The problem of combined development and fixing of photographic plates has attracted the attention of many experimenters, who have sought to solve it by the addition of suitable quantities of hyposulphite of soda to developing solutions compounded in a manner specially adapted to this kind of process.

Punnett[1] attempted, along these lines, to add hyposulphite of soda to an ortol developer for the development of chloro-bromide plates. Hanneke[2], in 1889, pointed out the use of a pyrocatechin developer in conjunction with caustic soda as a means of permitting the use of a large quantity of hypo-sulphite[3]. V. Crèmier[4] has given the formula of a diamidophenol developer, made up with sulphite and with addition of hyposulphite of soda. According to this author this developer, which decomposes very rapidly, serves particularly for the combined development and fixing of chloro-bromide plates and papers. Gaedicke[5], as the result of examining Crèmier's formula, entirely disputed its practical value. More recently Chiri Otsuki and Takashi Sudzuki[6] have repeated Crèmier's experiments, but obtained no better results than Gaedicke, although varying the relative proportions of diamidophenol, sulphite and hyposulphite of soda. On the other hand, they succeeded in obtaining good results by means of metoquinone developer, made up with addition of sodium hyposulphite and caustic soda. When the caustic soda in this developer was replaced by alkaline carbonates, the negatives were of poor vigor and lacking in gradation.

The results obtained by Otsuki and Sudzuki have been confirmed by Valenta[7], who has given a disodic pyro formula, which, however, does not appear to possess any practical interest, since the solution rapidly decomposes, and gives negatives of poor vigor, whilst also staining the gelatine.

In the course of our work on this process of combined development and fixing, our experiments have confirmed those of Otsuki and Sudzuki, which are superior in practical value to those of earlier experimenters.

But the production of satisfactory negatives requires a considerable degree of over-exposure.

Our experiments have been made with the aim of improving the formula of Otsuki and Sudzuki and also of replacing the caustic soda by a substance of more constant composition. We have also made experiments for the purpose of discovering if chloranol[8], the constitution and developing properties of which are closely allied to those of metoquinone, yields similar results.

In the course of a large number of experiments, we have systematically varied the relative proportions of metoquinone or chloranol, of sulphite, hyposulphite, and caustic alkali. We have also made comparative tests of the action of other alkalies, namely, caustic potash, caustic lithia, ammonia, aldehydes, acetone and tribasic phosphate of soda.

Caustic potash and caustic lithia behave similarly to caustic soda, but they have the same drawbacks as the latter, namely, uncertainty of composition, and require to be used in the form of a titrated solution.

The use of ammonia leads, in every case, to weak negatives, showing fog and very poor gradation. Among the substitutes for the alkalis, aldehydes and acetone behave like alkaline carbonates, and likewise give weak images lacking gradation. On the other hand, tribasic phosphate of soda is similar in its action to the caustic alkalies, which confirms the observations which we made some years ago[9] on the use of this substance as a substitute for caustic alkalies in developers. The following are the developing formulae which we have worked out after numerous comparative tests:

Formula No. 1

Soda sulphite, anhydrous	32 gms.
Chloranol	6 "
Caustic soda (real Na HO)	5 10"
Soda hyposulphite	60 "
Water	1,000 c.c.s.

Formula No. 2

Soda sulphite, anhydrous	32 gms.
Metoquinone	6 "
Tribasic soda phosphate	100 "
Hypo	40 "
Water	1,000 c.c.s.

It is to be particularly noted that in formula No. 1 the caustic soda may be

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replaced by 140 gms. of tribasic soda phosphate, in which case only 48 gms of hypo, instead of 60 gms. is used.

These developing formulae give negatives the clearness, vigor and gradation of which compare favorably with those obtained by the ordinary method of separate development and fixing. With formula No. 2, however, the results are somewhat less clear.

In the case of gelatino-bromide negative plates the time of combined development and fixing with the above solution is about 5 to 30 minutes at 65 deg. F. Development takes place automatically and may be done in a vertical tank in the darkroom; the plates may be withdrawn in full daylight as soon as the the process is finished.

Over-Exposed Paper

Combined development and fixing allows of better results being obtained from over-exposed negatives than by the customary processes of seperate development and fixing. For the same degree of over-exposure the plates treated by the combined method exhibit a gradation which frequently could have been obtained when using the ordinary method, only by a very great modification of the developer for the purpose of correcting over-exposure.

Minimum Quantity of Solution to Be Used

In order that the negatives may be of assured permanence it is necessary to use the developing solution in quantity sufficient for the formation of the double hyposulphite of silver and sodium which requires to be formed in fixing and which corresponds with the following formula, obtained by ourselves some years ago[11]:—

$$2Na_2S_2O_2 + Ag_2S_2O_2 + 2H_2O.$$

If this is not done, the double salt is deposited in the film in the course of washing. Now a 9x12 cm. plate of average thickness of coating contains about 0.25 gm. of silver bromide, requiring, for the formation of the soluble double salt, 0.5 gm. of hyposulphite of soda. Therefore, for the development of a plate of this size, 50 c.c.s. of the developing solution will be sufficient, since its content of hypo is from 2 to 3 gms. according as one uses formula No. 1 or No. 2.

Developing Paper and Lantern Slides

The No. 1 combined developing and fixing formula is the most suitable for the development of chloro-bromide plates and papers. Nevertheless it is advisable, when using these sensitive materials, to double the normal time of exposure. With papers it will be necessary not to develop for longer than two minutes, otherwise the purity of the whites will suffer. Papers containing only silver bromide cannot be developed by this method since they give considerable fog.

Potass bromide appears to be without effect in reducing this fog.

Summary

In certain cases the method of combined development and fixing which has been described may replace with advantage the ordinary method of developing, particularly in circumstances in which it is desired to employ a process requiring no supervision. According to the method the plate is simply treated in the combined developing fixing bath for a sufficient time, which is about thirty minutes. In the case of papers this time is about two minutes.

Inasmuch as a longer period of immersion in the developing-fixing solution is without effect, and as the illumination of the dark-room is greatly simplified when employing this process, it will be seen that this form of development may at times be of distinct service, particularly as regards the regularity of the results which it yields on plates which have been over-exposed.

A. and L. LUMIERE.
A. SEYEWITZ.

1. "British Journal of Photography," 1898, p. 126.
2. "Photographische Mitteilungen," 1899. p. 141.
3. A developer composed of pyrocatechin and hypo was issued commercially as "Elkonal," but the unsatisfactory results which it gave greatly limited its use.
4. "Photo-Revue," 26 (1911), p. 170.
5. "Eder's Jahrbuch," 1912, p. 6.
6. "Photographische Korrespondenz," 1914, p. 214.
7. "Photographische Korrespondenz," 1914., p. 347.
8. It may be recalled that metoquinone (which is a combination of 2 molecules of methyl-paramidophenol and 1 molecule of hydroquinone) and chlorbanol (which is formed by 2 molecules of methyl-paramidophenol and 1 molecule of chlor-hydroquinone) both resemble diamidophenol in possessing the property of forming working developers without addition of alkali. They are at the present time the only developing substances which, while possessing this property, can also be used in conjunction with an alkali, either carbonated or caustic, for increase of their developing power without causing rapid decomposition of the solution, staining of the gelatine, or production of fog.
9. Bulletin de la Societe Francaise de Photographie," 1895.
10. This weight of caustic soda, calculated as NaHO is added in the form of 50 c. c. s. of a tritated 10 per cent solution of Na HO.
11. "Bulletin de la Societe Francaise de Photographic," 1907.—B. J. of Photography.

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THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Our Wild Flowers

Have you ever, when walking in the country, picked a wild flower and said, "I wonder what's the name of this?" You were interested, or you would not have noticed it, would you?

A whole lot of people are attracted by the beauty of wild flowers, and many would like to know a little more about them.

Among our readers are many good photographers; let us work together!

What we wish to do is, to publish a good cut and a short description in each issue of CAMERA CRAFT of some wild flower, or useful plant.

Will you contribute one photograph during this year? It will be quite interesting, and we shall all learn more about our wild flowers.

You will notice we have started in this issue with No. 1—The Soap Plant, contributed by E. W. Fuller, we hope you will be interested; perhaps the article gives you new information, that is just our intention; to give pleasure—to give satisfaction.

Here are some pointers which may help. When photographing for this particular contribution, make your negative just as sharp as you can, and have everything just as natural as it can be. Though not absolutely necessary, remember a color screen is often a wonderful aid. If you have only a hand camera, don't think you are out of the running, measure your distance carefully, and use a portrait attachment.

With the photograph, we shall need a short description, tell us anything that will help to further identify the subject, where it grows, its size, the color and size of the flower; let your article be about 200 words. It does not matter if you are not in the habit of writing, we will dot your I's and cross your T's 'n everything.

Mist Pictures

Quite a number of amateur photographers have the idea, that to make a good photograph, we must have an abundance of light. This idea has taken possession of them probably owing to the fact, that practically all novices with the camera, begin their photographic career with the snapshot, and many go careering through their comparatively short photographic lives snapshooting.

This kind of work often leads to disappointment, for seldom do we produce work that is worth while from a pictorial sense. As a souvenir getter the snapshot leaves little to be desired, but for pictures, give me a tripod, and for good measure, throw in a ground glass. I feel so much surer when I can see the picture on the screen. It is so comforting to know that one has the best view obtainable from that chosen position. Did we not turn the camera on our tripod, first a little to the right and then to the left, before we decided on just the view, before we put our plate or film holder in its place? Did we not have a good chance to make sure whether our camera was plumb or just anyhow? And when we made our exposure we felt differently, and why not? We did not have to peek into a dinky view finder, and neither did we when we pressed the button, do so, with the hope that every thing was alright.

Of course, all the preparation and care we exercise when using a tripod may strike some as pretty slow, and it does seem a lot of preparation for an exposure which may be of only half a second or at the most, possibly one second, but there is a tremendous difference between half a second and a twenty-fifth of a second, it may mean you get it, or you don't get it.

Presuming you are one of those amateurs that do not "shy" at a tripod, let me persuade you to try some mist pictures.

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Perhaps you are a worker, six days a week, and you claim Sunday morning as your own—yes sir! your very own; but try it once. It is horrible to contemplate arising on a Sunday, perhaps a little earlier even than on a work day, but try it once, and get out in the fields, in the mist. You will see another land, to what you would gaze on at ten o'clock, something totally different.

Corot, the painter, made his name by the help of morning mists, they appealed to him, and his pictures appeal to us.

The great trouble with most photographers is, the lens shows too much. All we really need is just that in the picture which appealed to us, the rest must serve as support. We may have been attracted by an old farm house, and behind it are outbuildings and trees and if we were to photograph it in a so-called good light, we may have a jumble, everything is mixed, because it is so clear; this may sound contradictory, but it really is not so, as far as the picture is concerned.

There is a moment in the morning when that old house may be more than merely beautiful. There is a time when most things are still and the curtain of mist is rising; and, that is your time. Objects in front and near you will show sufficiently clear, objects behind, and the distance, are still shrouded—indeed, that is your time.

The Rectilinear Lens

There was a time when we amateurs thought pretty well of ourselves if we owned a rectilinear lens, of course that was quite a little while ago, and we were quite simple in our tastes. The anastigmat was unkown then, though there were whispers of it. And I remember the first print that I saw, made with an anastigmatic lens, it was on a very glossy paper, a view of some barrack-like building, taken square on. The idea naturally, was to show the flat field of the lens, and it certainly did. The lens was made by Goerz, and the print caused a sensation among some of us young fellows. It was fortunate for me that for my own amusement I did not need just then, a lens so good as that; I did not even enquire the price, for I had a hunch it was expensive; I am a believer in hunches, even to this day. And it was just as well I heeded my hunch, for I was able to go on blythely, working with my rectilinear, and many a prize I won with that rectilinear.

Once I sent in two heads for a portrait competition in New York, there was offered a silver medal for the first prize, and a bronze one for the second, and believe me, friends, my rectilinear won both prizes.

Then there was a fine silver cup in Boston, it was called the grand prize, and sure enough that rectilinear brought the prize home to me. You would tire if I told you all that rectilinear did for me, both in this country and abroad.

If you will turn to page 9 you will see a print made by that rectilinear lens in an ordinary room, and that was twenty-five years ago.

Perhaps some reader would like to take up photography but hesitates, because what we call good lenses today, cost money. But why wait? Lenses of the rectilinear type are now a little better than they used to be, and they are quite moderate in price. Or, one may buy the old type of rectilinear, the same as I used, from certain dealers for a very small sum.

It is a good idea to get in the game now, and experience the joy of it. We can learn a lot from even a very moderate priced outfit, and when we purchase an anastigmatic lens later, we will appreciate it the more.

Copying

I can assure you, it is worth while to become familiar with copying; you will learn much about exposure and development. In copying your light must be even on the copy, and your exposure time should be exact.

If your original is contrasty, use a plate of medium speed; if inclined to flatness, a slow plate is preferable. A backed plate is an advantage. Give a full exposure and never force development. In developing the negative made by copying, one is apt to feel disconcerted at the flt appearance of the image in the developer; there is naturally a tendency that way, for the lights in our original, represented by white paper or white paint, are dull as compared to light itself. We therefore adopt a method inclined to contrast, by using slower plates and, if necessary, a modified developer.

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INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.
Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.
A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.
Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.
John Bieseman, Director Post Card Division, Hemlock, Ohio.
James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.
A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

To Our Members—Greetings

CAMERA CRAFT is the official organ of this association. It has been a long time since I addressed you through its columns. In not doing so I really had nothing of importance to say. I felt that the space I would take up could be used to a much better advantage.

As our membership has greatly increased in the past five years, there are many of you who do not know the past efforts to build up the association to its present strength.

In writing the following, words almost fail me in so doing, as I have not as yet recovered from the sad news, that our old friend and secretary had traveled to the Great Beyond, and which to me does not as yet seem possible.

You have all read in CAMERA CRAFT and the circular that was mailed you, that "Clute was Camera Craft and Camera Craft was Clute." I wish to advise that this also applies to the I. P. A., for this association was also a monument he himself builded. So this association with OUR help must and shall endure.

It was in the year of 1901 that I had the honor to become a member, of what was then called the I. P. E. (Exchange). Our dues were fifty cents a year, a member, which included a little monthly paper of four to six pages, called the I. P. E. Mr. Robert Kirkland (now deceased) was president and Clute, secretary. Mr. Kirkland, a Denver boy, was a good friend of mine, and called me in to help him and Clute to try and build up a new and larger membership, which was done. Then Mr. Kirkland passed away, and my old friend Clute prevailed upon me to become president, which I accepted and tried to do my share of the building up, but it was the tireless efforts of our late secretary that did the work; I only helped. Then came the earthquake and fire in San Francisco, at which time only a few records were saved. Mr. Clute, almost alone and nothing daunting, with love for his own and kindred tastes, went ahead with the work; work that many of us would have hesitated to do. He wrote me at Denver, sent photos for cuts and copy for CAMERA CRAFT and many of the old members will remember the magazine was again in their hands. It was at this period that we decided to cut out the I. P. E., make CAMERA CRAFT the official organ and change the name of Exchange to Association. For awhile things ran in a smooth channel, then came the war and the dates of publication fell behind. You now have before you the new dates of publication, and are assured that it will be up to date by the end of the year.

Our new Editor, Associate Editor and Secretary are making, and will continue to make every effort to keep CAMERA CRAFT and our "Association" at the head of the class.

As president of the Association (and I know it would be the wishes of Mr. Clute, were he still with us), I wish to ask of you, each and every member, to give all the aid and support you can consistently give, to our new General Secretary, A. E. Davies. I especially ask the support of the State Directors, their Secretaries and Album Directors. We have never gone out and

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solicited members to any great degree. Let us now do so and build up our Association, that will stand as a monument to one who has passed away. We can do this by just dropping a word here and there or by handing or sending out a membership blank, which the Secretary will furnish. Let us all get together and do this.

May I have your co-operation?

Sincerely yours,

F. B. HINMAN.

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California—A. E. Davies, 1327 Grove St., Berkeley.
Colorado—H. E. High, 1023 Champa St., Denver.
Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
Iowa—Harry B. Nolte, Algona.
Kansas—H. H. Gill, Hays City.
Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
Missouri—J. F. Peters, Room 210 Union Station, St. Louis.
New York—Louis R. Murray, 21 Clark St., Ogdensburg.
Oregon—F. L. Derby, La Fayette.
Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

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Utah—John C. Swenson, A. B., Provo.
West Virginia—William E. Monroe, Box 298, Point Plessant.

NEW MEMBERS

4884—Dan H. Reese, Paradise, Cal.
3¼x5½ developing paper, clouds, scenic, water; for clouds, scenic, historic. Postcards only. Class 1.

4889—Charles J. Louzberg, 54 Henry St., New York, N. Y.
Class 3

4890—J. J. Drahowzal, 740 East 133rd St., New York, N. Y.
Class 3.

4891—Hugo Koehn, P. O. Box 609, Houston, Texas.
3¼x5½, 4x5, 3¼x4¼, Azo and Velox of scenics, genre, figure studies, nudes and daring girl poses; for figure studies, nudes and daring girl poses. Class 1.

4892—Oscar Allen, Harrisburg, Texas.
5x7 of general views for the same. Class 1.

4893—Oliver Bolme, Enloe, N. D.
Class 2.

4894—Clifford J. Peterson, 561 So. 3rd East, Brigham City, Utah.
Class 2.

4895—Paul A. Wolf, 707 Eleventh St., La Salle, Ill.
Class 2.

4896—Joseph Bartunek, R. F. D. 1, Rockville, Nebr.
Up to 5x7 and postcards. Developing of miscellaneous marine views, war scenes in France and wild animals; for views of general interest. Class 1.

4897—C. W. Gibbs, Jr., 52 Linden St., Rochester, N. Y.
3¼x4¼ to 5x7 and enlargements. Artura of still life and landscapes; for general, figure studies, still life and portraits, genres. Class 1.

4898—A. B. Gilliland, care of Lewis Hubbard & Co., Charleston, W. Va.
2¼x3¼ to 3¼x5½. Developing of various subjects for anything of general interest. Class 1.

4899—Anton Berest, Route 1, Box 12, Trondale, Alabama.
3¼x5½ Graflex. Azo of views of outdoor, shop, machinery, genres; for same and foreign views. Class 1.

4900—Clair C. Crist, 603 So. Pine, Centralia, Ill.
Class 2.

4901—Miss Esther Riese, 53 Frederick Ave., Oakwood, Mich.
2½x4½ developing of picturesque views along small streams, Detroit Parks and vicinity; for pretty scenes. Class 1.

4902—S. W. Dodd, R. F. D. 35, Box 100, Barberton, Ohio.
Class 2.

4903—L. A. Thompson, Talmage, Utah.
Class 2.

4904—A. V. Stubenrauch, 16 Wright Bldg., Berkeley, Cal.
Class 3.

4905—J. L. Beard, P. O. Box 182, Coalwood, W. Va.
2¼x3¼ Eastman of historical, travel and sports, hunting and fishing; for same. Class 1.

4906—Takeharu Nakamura, Ubumi, Hamana-gun, Shidzuoka-Ken, Japan.
Vest pocket Autographic Kodak, Azo, Velox, Angel and Iris postcards of photos of beauties, actresses and views; for views of general interest. Class 1.

4907—Glen C. Craig, Box 138, Fayette, Ga.
Class 2.

4908—George E. Lahrs, P. O. Box 889, Dakota City, Nebr.
4x5, 3¼x4¼, 2½x4¼, Azo, Cyko and Velox of nature scenes and interesting scenes; for panorama views and nature scenes. Class 1.

4909—Horace Johnson, 199 Market St., Santa Cruz, Cal.
Class 2.

4910—Arthur O. Kastler, 3125 Chestnut St., New Orleans, La.
3¼x4¼, 5x7 and smaller. Semi-Matte and glossy D. O. P., of street scenes, architecture, portraits and river views (Mississippi); for action pictures, genre, portraits and landscapes. Class 1.

4911—E. J. Darling, Perkasie, Pa.
Class 2.

4912—Edwin Heideman, 5 East 167 Bronx, New York, N. Y.
Class 2.

4912—Clayton Wollwend, R. F. D. 4, Box 11, Lidgewood, N. Dakota.
Class 2.

4914—Samuel F. Lawrence, 1247 Oakland St., Shreveport, La.
2¼x3¼ Semi-Matte of miscellanous; for scenic, sunsets and freaks. Class 1.

RENEWALS

3254—Vernon W. Hutchins, 39 Academy Square, Laconia, N. H.
Class 2.

3770—J. William Harmon, P. O. Clerks Box, Oklahoma City, Okla.
3¼x5½ and 5x7 contact prints and bromide enlargements up to 8x10 of good pictorial work, landscapes with and without figures, cloud effects, etc., and marines; for same, very best work only. Class 1.

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NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

CRAFT NOTES
Reported by William Wolff.

Roy Curtis of Reno, Nevada, expects to have more help in his Kodak shop May 1st.

C. C. Green, formerly of Salinas, and recently of Pasadena, was in San Francisco looking for a location.

Frank Gordner, Reno, bought a new Hup sedan recently.

H. R. Brinsmead returned from Australia and is again located in Reno.

Edw. R. Freeman has a pretty little Art Kodak Shop in Palo Alto.

The Ettter Photo Shop of Haight Street, has added a Pa-Ko printer to their already well equipped place and expect to put in a Pa-Ko washer next month.

F. G. Kinman of Fillmore Street, is also a Pa-Ko printer victim. They're all doing it.

Frank Davey's son has left Palo Alto for Rochester, where he expects to go through the Eastman factory.

Here's another one: W. F. Burhaus, San Jose, came to the city and bought a Pa-Ko printer.

Mrs. Wm. Lussier, wife of the late Wm. Lussier of the Cramer Plate fame, is now located with J. C. Gordon of San Jose in the commercial line.

The writer is going East shortly, in the interest of Probus products. Geo. A. Dolan will have full charge of the plant while the writer is away. Send him an order and see how quick he will fill it.

When the writer calls on you, be sure to give him your subscription to Camera Craft for one year, at least.

About Lenses

"The right lens is an investment, not an expense—an investment that will pay daily dividends in better negatives and finer workmanship." The truth of the above is so apparent it needs no comment.

We have just received an excellently gotten up booklet from the Wollensak Optical Company, of Rochester, New York, descriptive of their lenses; and to add interest, there are reproductions in picture of the work their lenses will do. The first illustration to attract attention is a home portrait group, and the family dog. The dog is so often regarded as "one of the family," that it may be counted as next to the baby, and it is a thousand to one that the owners want that dog included in the picture, and also that there are great odds the photographer thinks quite differently: What is that but another way of saying the lens must be O. K., and this picture was made with the Velostigmat Series II, F:4.5, this booklet will tell you all about this truly general utiilty lens.

The Vitax Portrait, F:3.8, is a professional's favorite, it is the lens especially suited for child portraiture, giving beautifully that stereoscopic effect which adds charm to portrait deliniation.

The Verito Diffused Focus, F:4, a pet of the pictorialists,both professional and amateur. A very satisfactory portrait and an interesting genre subject both the work of this lens, are given as illustrations of the pleasing and artistic results obtainable through the Verito.

Workers, professional and amateur, will find the Wollensak booklet both informative and interesting.

First Annual Exhibition

The prize exhibition of pictorial photographs held in the galleries of the Kansas City Photo Supply Co., Kansas City, Mo., proved such an attractive display, that it was decided after this exhibition, the pictures should be removed to the Kansas City Art Institute on account of their educational value.

The judges were, Conrad Hug, Jr., Virgil Barker, Horrace Lapierre, Purd Wright and M. B. Nicholson.

The following exhibitors received the principal prizes: Dr. Rupert Lovejoy,

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"Between the Lines"—"Dawn"—first prize, $100.00; W. A. Alcock, New York, N. Y., "A Lonely Virgil,"—second prize, $50.00; George W. French, Newark, N. J., "Bending to the Task"—third prize, $25.00.

An All Season Business

Home portraiture undoubtedly may be called "an all season business" and the photographer provided with a Halldorson Portrait Flash Lamp is able to secure his share of the extra money.

A flash lamp is not to be regarded as an expense, it positively is—a money getter—it can earn for you when business at the studio is slack during off-seasons; it can earn money for you in the evenings, when your studio is closed.

The flash-lamp—it is the pass key to the home—a real asset in widening your business circle— it just naturally brings you new customers.

There is a style for every requirement. There is a folder, "The Way to Successful Home Portraiture"—free. Get this folder; it may give another idea for the profitable use of time.

The Halldorson Company is located at 1772 Wilson Avenue, Chicago, Illinois.

Developing Your Business

This is admirably done by adopting Perfection Developing Tanks, for they undoubtedly increase your efficiency, and register on the target of success a perfect bullseye.

The Perfection Developing Tank system is listed among the supplies furnished by the Northern Photo Suplly Co., Minneapolis, Minn., and when in want of anything for the finishing department, be sure to get their large assortment of literature describing all the latest in this line. It will pay you.

This Company's advertisement is carried in another section of our pages.

The Welsh Rapid Photo Printer

There is a new advertisement worth looking up in this issue, the one of the Welsh Rapid Photo Printer, now ready for the market from the Co-operative Machine & Tool Co., 915 Washington Ave. So., Minneapolis, Minn. There is a finishing room down in San Antonio, Texas, that has been using twelve of them for about three years, and several other users have kept one or two in operation for a like period with every possible degree of satisfaction. They have done the work, done it well, stood up as well made machines should stand up, and given the speed that counts for so much in the amateur printing room. They are not an experiment, either in their application to actual use or manufacture. The original printer has of course been improved upon in a few minor details, mainly of construction, so that now they are ready for the market the manufacturers are sure they will have only pleased customers to assure them a growing demand.

Johnson's

This notice is not intended in any way to introduce to our readers the name of Johnson & Sons, Manufacturing Chemists, Ltd., London.

We merely wish to draw atention to their new and reduced prices, which will be found in their advertisement on another page, they affect Pyro and Hydrokinone.

The goods are the same as always, pure and reliable, the price only has changed.

Something Different

In the March number of "Kodakery" we are given the idea of a novelty, something that any one can do. Vegetable Vaudeville, what does that suggest to you in the way of pictures?

Cartoonist Bradford has written and illustrated an article entitled, "New Stunts for Your Kodak," and he has used vegetables for his models; and in his pictures entitled, "Vegetable Vaudeville," we are shown a turnip dancing before a screen, while an onion turns the crank of a little movie camera. It is funny, and we would ask if living models could possibly tell the story better?

Another photo, with its accompanying rhyme, illustrates an onion as artist picturing a goose.

Ho! See the fool artist a-limning a goose—
A terrible waste of good time—an abuse;
He roosts in a garret and lives on a crust—
For he is a person no butcher would trust.
Swap art for shoemaking — why, shoemaker's sons
Have riches and autos — and cinnamon buns!
While artists are poor and feel poverty's pinch—

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They art by the yard—but they eat by the inch!

A picture of great interest is given showing just how these vegetable comics are made, and a diagram illustrates the positions of camera and subject, the whole thing is just as simple as can be.

In another part of Kodakery we have more Prize Pictures of Childhood, the youngsters are having a great time at their various amusements.

"When the negative is under-developed," is the title of a technical article which gives valuable information. The whole magazine is gotten up to be useful and interesting for the amateur reader.

Why is it?

Is there magic in distance? The question has been oftentimes asked, Why is it, that lenses of foreign make, seem to be preferred by many photographers in this country to those of our home manafacture?

It has been suggested it showed a lack of patriotism. We can not agree with that; but if we were cornered for an answer (and we confess we do not know it all,) we should be tempted to give the following reason—it's the magic of distance. But, we all like to be fair, we mean to be fair, though we sometimes forget.

We believe all American lens makers are quite willing to send their lenses on trial, through the agency of your dealer, now, that is a business proposition that no one can find fault with, and we remind readers of this fact, lest they forget.

The Graf Optical Company, who advertise with us their Super-Anastigmats, has the following, and we quote, "Your dealer will gladly furnish you with one of these lenses for trial: or, we will send you descriptive literature on request." Look up their advertisement in this issue.

A Trimmer That Trims

Probably you have found the average pocket knife a poor print trimmer. It may have behaved fine 'till your cut reached the print's corner, then off tore the corner, and —what did you say?

Look up Hirsch & Kaye's ad., facing the back of our frontispiece, and you will see a cut of "The Safety Trimmer." This trimmer carries a real razor blade, and you will never use a pocket knife again, after trying this "nifty" contrivance.

Like the boy who nibbles the bread, around the puddle of jam, we too, have kept the best item for last. Though this trimmer has two cutting edges, yet in the nature of things, they will in time get dull; but listen—you don't have to buy a new trimmer; simply remove the set-screw, remove the razor-blade, and insert another blade from your discarded ones and you then have another new trimmer.

Sole American Agents

An item of interest is the amalgamation of the famous company of F. Krupp at Essen, with the Ernemann works at Dresden. This combination will assure the development of the latter's photographic goods.

The name Ernemann, on photographic apparatus, means a great deal to an ever increasing number of photographers; it stands for the very highest in every branch of photographic outfit, whose construction displays such ingenuity, thoroughness and skill, as to appeal particularly to all advanced craftsmen.

We congratulate Herbert & Huesgen Co., general distributors of photographic and optical goods, 18 East Forty-second Street, New York, on being appointed sole American agents for the above named firm; and it will be gratifying to a larger number of patrons to know, that they may now secure what they require, with promptness.

Another item of news is, with this agency is installed a special service department, available to all owners of Ernemann apparatus, so that any of the products manufactured by Ernemann that may need repairing, or other attention, will have the same careful consideration as products made by American manufacturers.

And further, Herbert & Huesgen Co. invite all users of their particular goods, to go to them with their questions and difficulties. It is also the intention of this agency to take care of all previous customers who have been purchasers of Ernemann productions. All this speaks highly for the determination to hold the existing clientelle, and to push vigorously for new business which is bound to be theirs, for such thorough methods assure that outcome.

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The presence of this seal means the absence of harmful impurities.

EASTMAN INTENSIFIER

In glass tubes, priced at fifteen cents each, is an Eastman Tested Chemical. It's right, and you know it's right, because it wears the seal.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

At your dealer's.

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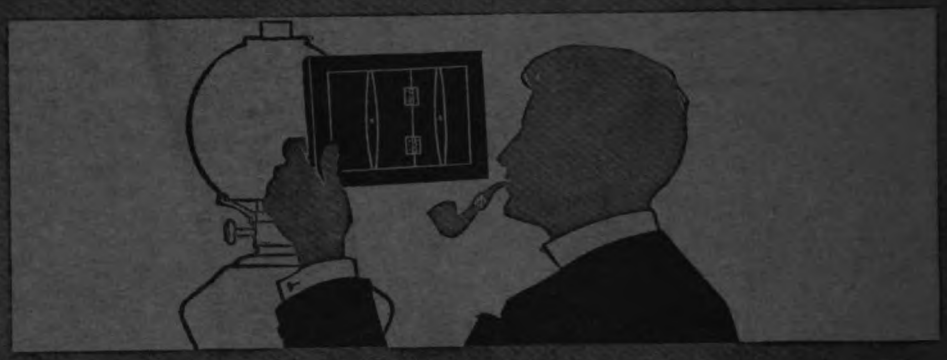

Prints by Gaslight

VELOX

the paper you want
for the
prints you want

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

At your dealer's

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CAMERA CRAFT

SAN FRANCISCO
CALIFORNIA

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"ARE YOU COMIN'?"
By ALBERT E. DAVIES

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

CLAUS SPRECKELS BLDG. SAN FRANCISCO CALIFORNIA

VOL. XXVIII FEBRUARY, 1921 No. 2

A Viewing Convenience

By Harold J. McCurry

With Illustrations by the Author

For years, in my traveling over the State of California, making commercial views for county organization and private individuals, I have often found myself needing a little elevation. Of course, a barn, or a windmill frame sometimes affords the elevation, but such things, even when available, are rarely situated just where one wishes to work, in fact, one might say that they never afford the point of view that is the most desirable.

To overcome this difficulty I had a local wagon maker build me a tripod-ladder as shown in the illustration herewith. The top is much the same as that of an ordinary step-ladder except that it is fitted with a tripod screw socket and is made so that the back part can be raised above the connected ends of the ladder portion, thus giving me such inclination as is required. The two sockets into which the front legs fit are attached permanently to the running board of the machine and the two feet of the ladder or back portion is so spaced and so fitted with light forgings that they are instantly and firmly attached to pockets provided on the springs. The two legs are hinged in the center; the cross piece just above the hood being hinged to one of them; and when this last is turned down and its free end inserted in a pocket provided, prevents the folding of the legs when in position.

The ladder is also hinged between the third and fourth step, so that the whole thing folds up into a package a little over three feet in length. For

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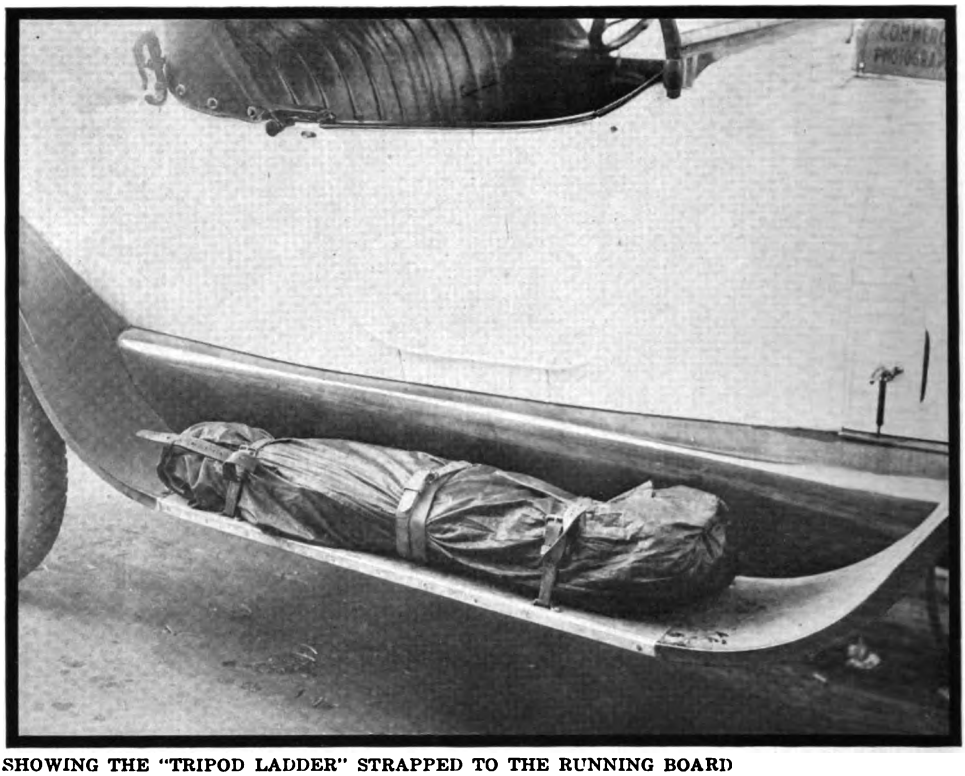

SHOWING THE "TRIPOD LADDER" STRAPPED TO THE RUNNING BOARD

carrying it is wrapped in a piece of heavy waterproof cloth and strapped to the running board on the other side of the machine. With the front legs about six feet long and the ladder a little shorter, I get an elevation of the camera of about eight feet. One could easily overdo the matter and make the height greater, but I have found this elevation sufficient for all purposes. While it takes but two or three minutes to set up this ladder, I rarely take it down between pictures, sometimes allowing even the camera to ride in position if the distance is short and the road smooth. Quite frequently, when I know it is to be used, I set the ladder up before starting out on a job, and it is always carried along the running board when viewing, for possible emergency.

I find it particularly advantageous when photographing orchards and the like that may have an old fence in front. Even when the fence is not objectionable, a better and more effective picture is secured from the higher elevation with such subjects as orchards, grain fields, truck gardens, animals feeding or grazing, and the like. In the taking of parades and such gatherings as outdoor speaking and band music involve, the ladder is indispensable. We all know that these must be taken from an elevation and the ladder, mounted on the machine, allows one to get the desired position without the waste of time and the annoyance of climbing buildings. Even such ordinary subjects as store fronts and private residences are frequently more suited to the higher elevation, the camera being thereby used nearer

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A VIEWING CONVENIENCE

ALL SET UP AND COMPLETELY INDEPENDENT

a point opposite the center of the finished picture than is the case with the usual tripod standing on the ground.

Amateurs who are in the habit of patronizing the commercial printers and enlargers should reserve some of their negatives for their own finishing. It certainly is a great convenience to turn work over for others to do, it may even have economy to recommend it, but if we are really fond of photography we should find pleasure in learning all we can about it.

There is hardly a negative but can be made to yield better results by what is commonly known as "dodging;" dodging takes experiment, experience and time, can we expect this from the commercial worker? Certainly not at the rates charged for their work.

By far the larger proportion of amateur negatives today are snapshots and probably three-quarters of these shots are undertimed. I don't mean so undertimed that they are worthless, but sufficiently undertimed that the shadow detail is too feeble to stand, while the lighter portions of our picture are being printed. Such a negative as this one may be tempted to intensify, but if the lights in the negative are sufficiently dense, of what avail is intensfication? Intensification under these conditions, will build up our shadow detail and over build our light detail, we have shifted our difficulty but by no means have we overcome it. Local intensification or staining of shadows will be found satisfactory treatment.—E. F.

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OUR WILD FLOWERS

Kindly Contributed by Our Readers

NO. II. STICKY MONKEY-FLOWER

Growing on the lower slopes of open hillsides and flat places is the Sticky Monkey-Flower; a small bush or shrub from two to six feet high, bearing through most of the summer months a wealth of rich orange yellow colored blossoms. The color of the common Monkey Flower which is similar in blossom is a canary yellow but the bloom of the Sticky Monkey Flower ranges from a deep ripe corn color to red. The leaves, long and narrow, turn backwards at the margins and during the warm months are covered with a thin, sticky, sap-like moist coating, that glistens in the sunlight.

A hardy plant and a lover of sunshine, it will grow on rocky banks where little other vegetation will take root and one will seldom find it in any more than partial shade.

ALBERT E. DAVIES.

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The Pictorial Element

By Edgar Felloes

With Illustrations by the Author

When Robert Demachy first exhibited his gum prints and won the admiration and praise of pictorialists, he gave a wonderful impetus to the process. There was hardly an amateur, including myself, but had a try at it. I stayed with it long enough to admire the results—when there were any—but it seemed to me, on account of the uncertainties and labor, that it was about the crookedest way of going straight ever invented. I have actually heard it argued, that one of the charms of the process was, "You never got two prints alike." I certainly do not deny this, for that was exactly my experience; but it never struck me to brag about it.

In a reproductive process like photography, it strikes me that uniform results are essential, and anyone possessing the skill to make a gum print showing its peculiar advantages, has sufficient talent to take up drawing or painting with a very reasonable hope of success. I can not begin to say how many gum prints I have seen, that would have looked better in almost any other medium. The fact that the print is by the gum process is in itself, no recommendation whatever. If there is a real artist behind it, the results may be splendid, but could not that be said of any other photographic medium?

The pictorialist today, appears to be greatly interested in any process which is controleable. He or she, has pursued photography long enough to feel the need of a method whereby the idea or emotion, can be more fully expressed, thus giving scope to a greater individuality of treatment; it is for these reasons the various control processes find such favor.

While we are chasing the new, and living on the tiptoe of expectation, I should like to draw the reader's attention to something that is old. I do not live in the past, but I do not like to see the good of the past—forgottten. Photographically speaking, we are in the day of bromide enlargements. The majority of us have learned to appreciate the value of small cameras; we know with reasonable enlargement the small negative, if good, is capable of giving fine results. Most of our salon pictures are from small negatives, and as the esthetic taste of today does not require the "needle-sharp" print, we may even carry that enlargement to considerable proportions.

It is my belief, that if we seek a controle process, we should adopt that method which requires the controle but once. When we have by that means done our best, let us repeat it mechanically, and not go through all the labor necessary, if we wish a duplicate or more specimens of the work.

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THE ORIGINAL SNAPSHOT PRINT

Photographers like to be called artists, but what would we think of an artist, because he painted a successful picture, who forthwith undertook to paint half a dozen more like it, what would we say of him?

It is far better for us, that we should avail ourselves of a mechanical process for duplication, than to follow the other method and allow ourselves to become mechanical. As soon as the pleasure of creation has gone, inspiration ceases; the after work then, should be cut down as much as possible. If we have the ability to create, we should hasten on, to create more; we owe it to ourselves.

If we are real amateurs, instead of making new negatives most of our time, we should try with some of our negatives and part of our time, to make pictures. It is these little excursions into the by-paths of experiment, that will keep our hobby always a pursuit of interest, these little experiments will bring fresh problems to us, something to think over, to master, and as long as there is that something, we will not tire.

Pictures may be made in various ways, by controlling the light while printing, by adding clouds to our print, or other combination work, in short, by doing anything to add to a pleasing result. Some photographers have a peculiar idea with regard to the artistic in photography, the adoption of a particular make of lens is supposed to do the trick, but these workers are in the minority fortunately, and they are akin to those workers, over enthusiastic on process. Picture-making is above all that, it is the result of thought, not trick.

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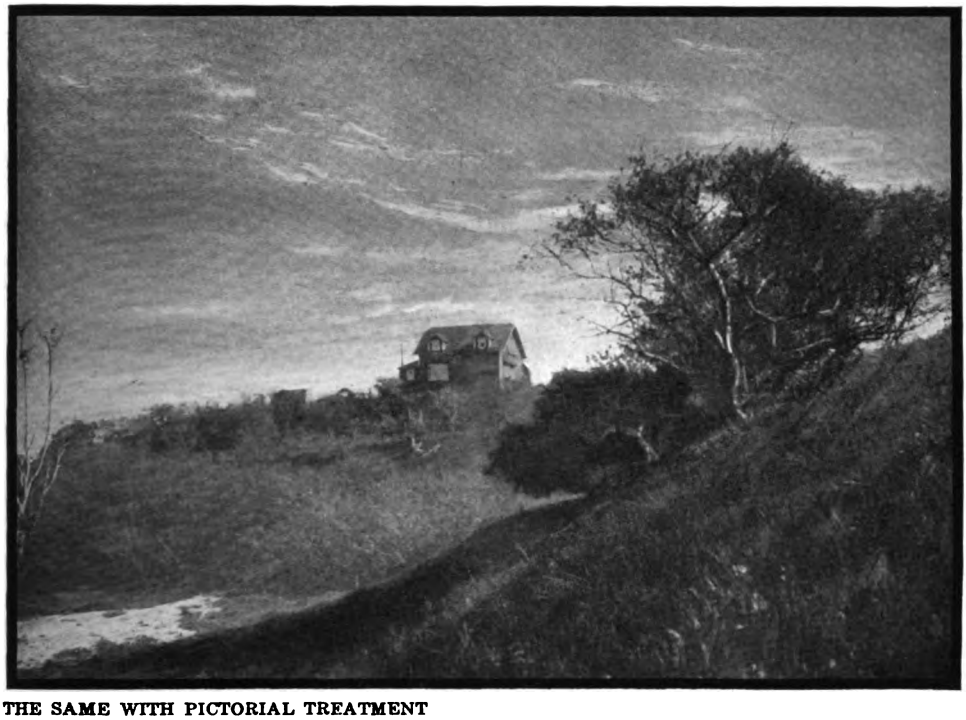

THE SAME WITH PICTORIAL TREATMENT

Here are two landscapes from the same negative. That negative is "the real thing," it is one of a million, snapped on a Sunday, developed and printed on a Monday and in eight hours it is yours, blushing in blackness; perhaps black blushes are not correct, but how about colored folks? Anyway, your's is the picture. The sky had not a cloud showing, it was a lovely afternoon; but clouds may be added so that did not signify much. The fault of the photograph lay, in the area of sky and landscape, both are practically the same, this should be avoided, and trimming is necessary if the print is to be left in its present state of unfinish. But I wished to add clouds and modify the print generally. For that reason I had two 5x7 enlargements made identically alike, from my 2¼x3¼ negative, one of these was to be printed untouched, and the other I wished to work up to show how simple it was to secure a more pleasing effect than in the original companion print.

To carry out this kind of work, we need two tubes of oil color, black and white, a tube of meguilp and a little turpentine, a piece of rag and some absorbent cotton, also an eraser pointed at one end. We may use colors put up for tinting photographs, they are said to be better, but I only used ivory black and zinc white as supplied to artists for picture painting. There are two kinds of white generally sold, Flake white and Zinc white, do not confuse them, the latter is preferable, it is more transparent than the former. Two or three paper stumps are sometimes useful and can be purchased with the colors, or we can make them ourselves, get only small ones.

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As to the prints themselves I prefer the semi-matt surfaces to any. The rest of our outfit may be secured at home, it consists of a fair-sized plate to serve to work colors on and a small butter saucer. Take the tube of black unscrew the top and squeeze out a little of the pigment on the edge of the plate, about the size of a pea, and alongside of the black place the zinc white. Now squeeze a little maguilp in the saucer and add to it a few drops of turpentine. Experiment will determine the quantity, if the color dries too glossy, reduce the quantity of maguilp, try and match the surface of the paper, your color should be not too glossy nor too dead.

If we examine the first print, we notice the bushes in the middle distance on the left, are in strength, almost equal to our foreground hillside, on the right. This is conducive to monotony and flatness, we should draw the two plains apart, this is done by contrast. If we lighten the middle distance and darken the foreground we immediately secure that end; and by separating these plains, we naturally secure the feeling of air space, which is very desirable.

Having mixed the turpentine and meguilp together, wrap the rag over the point of the index finger, moisten it in the medium and touch the lump of zinc white and work it out smoothly on the plate. With a thin and even coating over the covered finger, it will take a few minutes of practice to determine the amount of dilution the pigment requires, now cover those bushes and the distance with a very thin coating of white, applied in a circular motion. The pigment should not obliterate the photographic detail, and must be quite smooth. For the small spaces, around the tree, apply the white with a paper stump or a piece of the cotton, twisted around a toothpick. Both of these expedients are used in the same way as the rag; first, moisten, then work in the color, and apply in small circular motions to the picture. Should the pigment be too thick on the print, it is easy to reduce it by applying a clean portion of the rag, all the paint may be removed while wet by means of the rag moistened with turpentine if we have made any error.

Our middle distance having been made grayer, turn the print around and rub in the sky. For this apply the black paint only, in the same way as the white was used, excepting where the tones are darker, the pigment is used more freely. A few stock photographs of clouds will prove most useful in providing copy to work by. Endeavor to do all the work with pure black and pure white, it will rarely be necessary to make a gray by the mixture of the two pigments. The reason for this caution is, it takes considerable experience to mix a gray color and have it photograph as we may wish it. The sky having been covered we leave the finishing of it until later.

Let us now take the foreground and trees in hand. With more black on the rag rub in the hillside broadly, and with the assistance of the paper stumps add black to the trees. You will notice the small overhanging tree near the center of the picture, is made quite dark, and the bit of distance peeping beneath it, is made extra light, this is done for effect and to

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IRIS By Charles Hadden Parker, M. D., D. D. S.

heighten relief. Presuming the trees have been attended to, we will find our sky dry enough to finish.

Take the pointed eraser and remove the paint from the part of the sky we wish to show as light, the eraser is used in a sort of flicking way and with each touch wipe the point free of paint before repeating the action, and if there are harsh edges we think should be softened, rub them lightly with the clean rag. Still usiing the eraser remove a portion of the black from the tree branches, thus revealing the bright lights from the sinking sun, and also, the subdued light breaking over the hilltop is done in the same way.

In this finishing work it should be our endeavor to keep the photograph in sight. What we should strive for is, to give the spectator the impression he is looking at an honest-to-goodness photograph and if the work is artistic it will win admiration accordingly. Do not strive to make your photograph look like something which it is not, you weaken your effort and only win the indulgent smiles of the better informed; and lastly, do not leave your handiwork visible everywhere, in blotches and scratchings, and puff yourself with the expression—"technique."

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Two Practical Studio Appliances

By James N. Doolittle

With Illustrations by the Author

Whether it was a photographer or one of his patients who first gave expression to the truth that "You cannot tell from where you sit how your picture's going to look," has never been clearly established. But as a truth it has gone the way of many another ancient belief in the application of a simple accessory which is illustrated in Fig. 1, consisting merely of an automobile mirror fastened to the front of the camera stand as near to the lens as possible without interfering with the operation of the shutter, and by means of which a client may unconsciously (perhaps) assist the operator by assuming a natural pose without his having to resort to the oft-times difficult task of trying to tell him how to look pleasant. It's moreover a convenience to the sitter that usually finds ready appreciation.

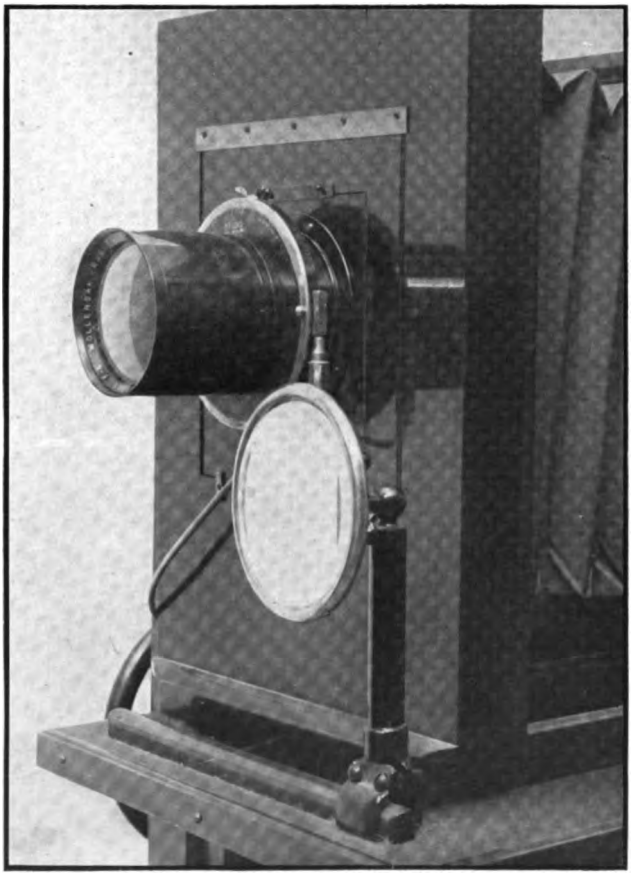

Fig. 1. CAMERA SHOWING MIRROR ATTACHED

Figures 2 and 3 represent an attachment also fastened to the front of the camera stand in the form of a copying easel. Its construction involves no intricate mechanical details, is easily attached and when removed may be folded compactly (Fig. 3). Its use replaces the common practice of pinning the object to be copied to the wall, jockeying about for parallelism and porper degree of

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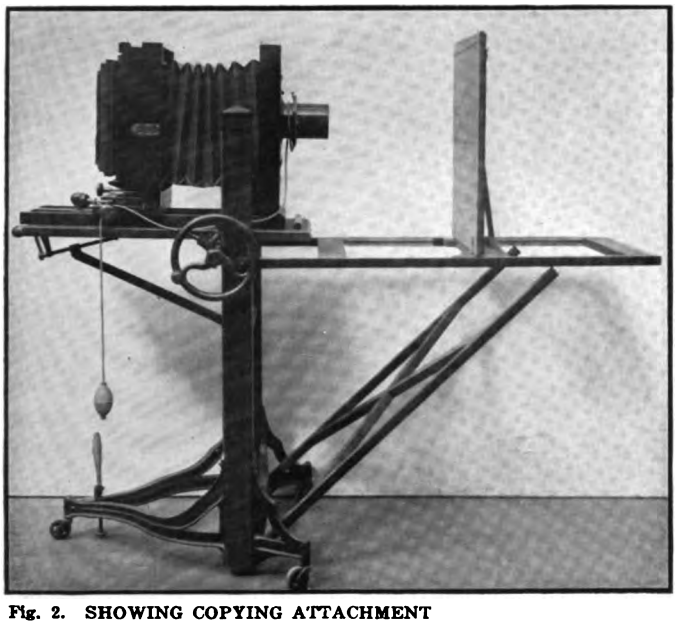

Fig. 2. SHOWING COPYING ATTACHMENT

leading studio, have proved perfectly satisfactory. It would not be at all difficult for any amateur photographer to avail himself of either suggestion.

The use of the mirror for instance in home portraiture, is to be recommended; it is not absolutely necessary to affix the mirror to our little cameras, in fact, it would be difficult to do so in most instances, but we could contrive a suitable support for the mirror, and it could be placed in any desirable position, from a profile portrait to a full face view,—try it, it will help. —E. F.

enlargement or reduction and the consequent loss of time and impairment of results.

Used with an 8x10 studio camera, fitted with a twelve-inch lens, a four-foot track and two by three easel will accommodate practically any work that the average portrait photographer is called upon to perform.

Note—Both these appliances used in a

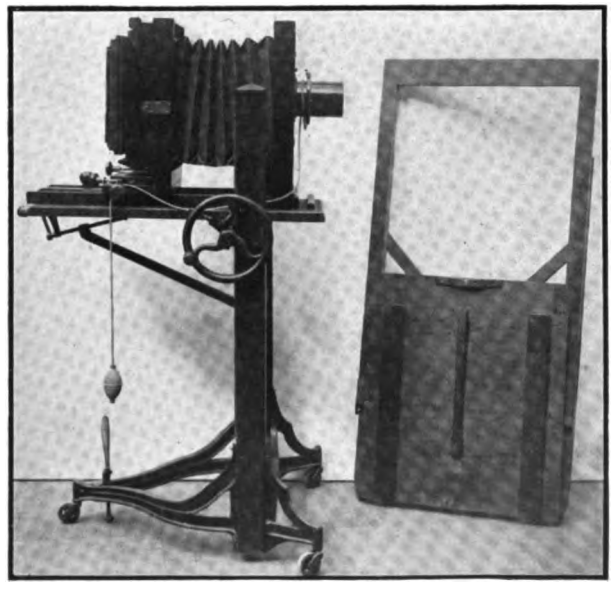

Fig. 3. COPY BOARD REMOVED FOR STORAGE

To talk art, appears to be quite the proper thing, but show a man how he can earn a dollar and you have accomplished something infinitely more useful.—E. F.

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My Out of Door Studio

By Bruce Stone

With Illustrations by the Author

Since writing my little article in the July number of Camera Craft I have had quite a shower of letters, from all parts of the United States, and it gives me great pleasure to know that there are so many others interested in the same line of business as myself. Owing to sickness, and lack of time, from my other duties, it has been next to impossible to write a satisfactory answer to all the letters I have received, and I hope that none who wrote, will think it was because I did not appreciate their letters because I have enjoyed them greatly. Almost all the letters I have received, requested that I write a more detailed account of my photographic business. So having a little time on hand, I have decided to write a kind of Photobiography, and if you think it will be of any interest to readers of your paper, you may publish it.

I would suggest that you give room in your paper for a department of this kind. I for one, would enjoy reading it, and I think the slogan of this department should be, "Make it photographic," just a little personal life as will make the story complete. Following these suggestions I begin as follows:

PORTRAITS IN THE GREAT OUT OF DOORS

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A RURAL SCENE IN TENNESSEE

I am a single man, was born in old Virginia May the 11th, 1882. Am very poor, therefore according to story writers, "very honest." I have been in the rugged hills of East Tennessee about twenty-three years. My desires for photography reaches back about as far as I can remember, for when I was quite a small boy, I can remember posing with a school group for a picture, and I would have given most anything to have been the photographer. He used a lens cap and gave an exposure of about ten seconds in the bright sun. It was a good picture and I have it now, although it has faded some.

If I had been wealthy, after completing school, I would have gone to a college and learned photography, but being otherwise, I am still an amateur, living in Sunny Tennessee. My experience as an amateur photographer began about fifteen years ago, when I bought a little 2x2 box camera and outfit, which I saw advertised in the papers, for the enormous sum of 25c, anyone can see that with an outfit like this, all I had to do was to follow directions to make pictures, at least, that is what I thought about it. It was a plate camera, and the plates had to be loaded one at a time into the back of the camera. For this purpose, as well as for developing and finishing, I constructed a dark room, by hanging bed quilts in a square in the center of the room, and also, over the doors and windows. In the outfit which came with the camera there was included a small ruby lamp, made of red paper, with a candle for illumination, but I didn't need it, for after I stayed in the dark room awhile, I could see very well without it, and after getting everything ready, I made my first exposure.

The instructions said to make an exposure of from one-fourth to one second, but to get a good deep impression I made it ten seconds. Then

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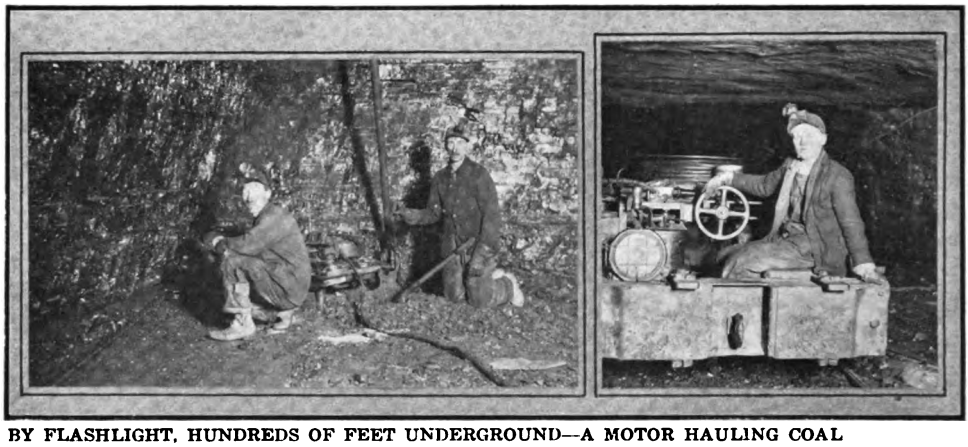

BY FLASHLIGHT, HUNDREDS OF FEET UNDERGROUND—A MOTOR HAULING COAL

came the developing, and after I followed dierctions very closely, to my surprise, I had no picture, but I thought that it might be the image did not appear on the plate at all after the developing, so I went right on with the printing. After it was fixed it looked like almost clear glass. The instructions did not say much about drying it, so I began at once to make a print; I was anxious to see the image appear; so I lay a piece of printing paper next to the wet side of the plate and laid it out in the bright sun to print; after I had watched it for about a minute I saw the image begin slowly to appear (the gelatine was melting and draining down). After I was satisfied it had printed enough, I tried to get the paper to come loose from the plate, but it would not, so I had to try it all over again. The next time I tried mixing the hypo and developer together, but of no avail, I was never able to get a picture with the outfit, so I decided that the company I bought from was a fake.

Later I purchased a 4x5 outfit for which I paid $10.00 and, I also got a good instruction book, with other books on photography, and I soon began to make pictures that one could tell what they represented. I made a dark room by fixing up an old clothes closet; it was only about 4x5 feet square, but it was reasonable dark in it, so I made some pictures that looked fairly well, but only about thirty per cent of my pictures were any good at all, but I thought I was a full pedigreed photographer, and when people would call to see about having pictures made, I would wonder why they did not know I was the photographer. After some time, I began to see that my pictures did not look like other pictures, made by other photographers, and after studying the situation I decided to try developing my pictures at night, which I found to be much better than the little dark room; for I had learned that temperature was an important item, and I found it to be less difficult to keep the large room at an even temperature, besides having more elbow room.

But I found this method to be very cumbersome, having to sit up late at night, and disturbing other members of the family, and there too, is the

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ever-present lint and dust, that besets a house used for general housekeeping purposes. After I had tried this for some time, and made several bad attempts at picture making, and had all kinds of trouble collecting money for them, I gave up photography entirely, but I soon found that the temptation was too strong to resist, or as the slang has it, "I had the bug," so I decided I would go into the business strong enough to at least pay expenses, and with this view in mind I planned the little room which I gave a description of in the July, 1920, number of Camera Craft. I now have a Rexo camera, 3¼x5½,with Ilex shutter and Wollensak Anastigmat lens, f-6.3, for which I paid $50.00. I have my dark room supplied with plenty of trays and other things needed, to make picture making a pleasure. I enjoy picture making much better, and make a much better profit, than when I tried to make pictures without the proper equipment and supplies.

I buy my chemicals in the bulk and do my own mixing, using the formulas that accompany the different brands of plates, films, or paper which I use, with a little variation in some of the formulas. I find that chemical cleanliness is a great help to making good pictures, and for this purpose, I have a set of mixing glasses, using a different glass for each different mixture, and in making a stock solution, I have a labeled bottle for each solution, and never use the same bottle for different mixtures, and I have enough trays, so as not to use a tray only for one solution. I keep a thermometer hanging where I can see it, and before developing I see that the house is the right temperature,and also a thermometer stirring rod, so as to see that the bath I am using is the proper temperature. For a developing light I prefer an oil lamp to daylight, because daylight is so variable and, one is likely to ruin a plate before they realize that the light is too strong. I make my exposures outdoors, so you see I have a very large studio. I make them on cloudy days, or in the shade when possible, using an exposure meter, which with a little practice gives me an exposure which, with proper developing, gives an exposure within the latitude of the plate. I use Azo gas light paper and have a north window to furnish light for printing purposes. I do quite a lot of amateur finishing work, and am making a very good profit, considering the capital.

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PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

TO OUR FRIENDS—Tell us what you know! Perhaps you have had some photographic difficulty and overcame it--how did you do it? Tell us!
Perhaps you know some photographic "kink" that others would like to know—be generous, help others; tell us what you know!
These paragraphs are yours; to be used for mutual help: let us hear from you—

A LINEN FINISH—I wish to contribute to CAMERA CRAFT a simple way to make a linen finish on postal cards or paper prints, it may be new to some readers. After the card or other photograph is finished, remove it from the water and blot off the surplus moisture; take a piece of cheese cloth the size of the print, iron it out, dampen it and lay it on the face of the photograph, now place the whole under a letter press and screw down tight, leave print to dry under pressure and you will be pleased at the result. Where one has not the use of a press, a heavy weight may be substituted.—P. A. F., Colorado.

A PLATE BOX—Often I want to make quite a number of exposures before doing any developing. To avoid being handicapped because of the lack of sufficient plate holders, I had constructed a light-proof wooden box measuring 5x7x20 inches, in the 5x7 end of which was carefully fastened an old 5x7 plateholder, with one slide and the opaque middle board removed. Then by drawing the slide, placing the exposed plates in the box and replacing the slide, one can again use strong light in perfect safety, without the inconvenience of wrapping and placing the exposed material in its original container.

This is quite a contrivance, particularly when working hurriedly with important material. I also use a larger box, less carefully constructed, in which exposed paper prints are placed.—D. E. McC., Texas.

FILM PACK NEGATIVES—I would like to make a little cross comment on drying film pack negatives, for your Paragraphs Photographic.

Why not, when you have gone so far as to have paid the Eastman Kodak Co. $4.00 for a Premo film pack tank, continue with efficient equipment by paying 60c for a dozen strap-hanger film clips? They can easily be attached and hung on a cord; they are efficient, convenient and time savers.

I would suggest also, a pair of rubber gloves, they will save their cost in unscratched negatives, and they avoid finger marks.

Efficient equipment is pleasant to work with and pleasant to look at.—L. F. H., California.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FOUNDED MAY, 1900

Vol. XXVIII San Francisco, California, February, 1921 No. 2

Our Wild Flowers

The page we have devoted to this subject has already met with the approving support of our readers.

We wish, however, to correct a misconception that this space is intended for California flowers alone, it was not our intention to make the subject so local. Camera Craft has many readers in every State of the Union, and we take this opportunity to remind them, that these pictorial contributions will be appreciated from any photographer.

We will try as much as possible to keep to our plan of presenting a picture of the plant with its natural surroundings, and alongside, a separate picture, a "close-up" of the blossoms or part we wish emphasized. This will tell the story in a satisfactory way, especially with the accompanying 200 words of written description.

If you, reader, are interested in wild flowers, perhaps you would find pleasure in this useful pastime; what we want, is a picture just as true to nature as possible, and there is nothing equal to photography to accomplish this end.

Just a hint while we are on this subject: Some contributors fail to get the best results through "forcing" their lens; this is regretable as they fail to get the best results for all their pains. It is far better when the object is small to make a sharp negative and have recourse to a moderate size of enlargement than to crowd our camera close up to the object, we secure much better perspective, in fact, a truer rendering of our subject.

We have received by this morning's mail a photograph of wild flowers showing a pleasing arrangement, but unfortunately, however, our contributor has forced his lens. The picture is excellent in everything with the exception of some spikes of flowers leaning towards the camera, as these are nearer to the lens they show a decided lack of definition, out of focus, when compared with the blossoms that are further away, which are perfectly sharp. A little thought will convince the worker that if a lack of sharpness is unavoidable, or even if it should be desirable, this want of definition should be in the background, it then serves as an artistic support to what may be in front of it. Some workers contend, that all that is necessary is to use a very small stop and by that means, increase the depth of field and thereby obviating the difficulty. The use of the small stops for this purpose is an abuse, there are other things to be considered besides focus, and the most important is distortion. If for instance we secure definition in the way above mentioned, we shall find those near flowers much larger than the other blooms, which may be only a few inches back; then why distort when there is no reason for so doing? Remember, all this can be avoided by moving the camera back a little, perhaps a matter of two feet will suffice with small cameras.

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AS THEY LOOKED IN 1886

(Identification by Jas. H. Smith & Sons Co.)

In regard to the old picture which you return will say that there are two or three faces which I do not recognize. In the top row from left to right, the first two faces I do not recognize. The third one I am not very sure of, but I think it is W. I. Irving Adams who was connected with the Scovill & Adams Co. and published their trade magazine, and I believe continued the publication some time after that firm combined with the Anthony Co. The fourth is Mr. Blair, I think his first name was Thomas, who for some years manufactured the camera known as the Hawkeye. The fifth is Mr. Allen, formerly of Allen Bros. of Detroit. The sixth is Mr. Butts, formerly of the firm of Tucker & Butts of Buffalo, and later of the firm of Butts & Adams of that city. The seventh is Mr. Wilson of the firm of Wilson Hood & Co. of Philadelphia, a brother of Edward L. Wilson, old time publishers of the Philadelphia Photographer of Detroit.

The lower row, the first man on the left I believe to be Robert Dempster of Des Moines and later of Omaha. The second is David Tucker of Buffalo. The third is Mr. Edward Cope, who was the practical manager for many years of the A. M. Collins Card Mfg. Co., and the fifth I believe to be Mr. Geo. Savage of the firm of W. A. Savage & Co. of Salt Lake, although it may be J. F. Adams of Buffalo. They look considerably alike, and I am not very sure, but I think it is Savage. I would like to have this half tone or a copy of it returned to me, as I have no picture of this kind. They were all familiar figures in the Photo Supply trade twenty-five to thirty-five years ago.

Jas. H. Smith.

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A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Duplicated Exposures for Difficult Subjects

Occasionally one is called upon to make a negative of an extremely difficult subject which would perhaps cause the most experienced of us to pause and wonder whether a self-screen, ordinary, or a filtered color-sensitive plate would give the best result, or, maybe, whether an exposure of one hour or two hours is wanted, or, again, whether f-6, or, say f-16, would give the better result. If the exposure of two plates is possible, and one is not limited as to time, the problem may be easier to solve, though the exposure of two plates becomes a very serious matter when the times of exposure are very long, as they generally are when working in dimly or peculiarly lighted interiors, the light coming through old stained-glass windows being at times very deceiving. Expense is also a consideration, especially when large plates are employed.

A professional worker of my acquaintance was called recently in great haste to a certain Royal residence where he was requested to make a negative of a room then vacant for about two hours, and although the exposure necessary was only about twenty minutes, he only exposed one plate, even though he had ample time to expose more. It was however, quite certain that neither he nor anyone else would ever have an opportunity to photograph the room as it had been left by men famous in the world's history. Blessed is the man who has such confidence in his abilities; unfortunately, I have no such confidence in mine, although a photographer of thirty years' experience in many parts of the world.

During recent years I have adopted a plan of dealing with difficult and uncertain subjects, a plan I can recommend, it not calling for much outlay; possibly none at all in many cases. I wish now that I had adopted it twenty years ago, when difficult subjects were for me the order of the day. I refer more particularly to the tasks of photographing the traditional scene of the Nativity and the Manger at Bethlehem, and the various sites in the Church of the Holy Sepulchre at Jerusalem. In each of these places, however, I managed to secure six exposures by flashlight before the priest custodians became alarmed because of the fire and smoke, and bundled me and my tools most unceremoniously out of the buildings.

My present-day plan of dealing with extremely difficult subjects is more awkward to describe than to work. My apparatus consists of a double quarter-plate stereoscopic camera fitted with a pair of Dallmeyer's old C. D. V. portrait lenses, and I have also a pair of Petzval lantern objectives fitted with home-made stops of cardboard, as well as several other pairs of lenses of various foci. My idea, however, as I shall explain, is not to make stereoscopic pictures. I make this statement now in case my readers cease scanning these remarks in the belief that I am trying to revive stereoscopic photography.

I use the old Dallmeyer portrait lenses more often than any of the others, because they are invaluable for difficult subjects of most kinds. These lenses (made in 1868) are similar to the well-known Petzval instruments, the difference being in the shaping and arrangement of the back combination. These old Dallmeyer lenses are, I believe, fairly common today, and may often be picked up very cheaply. Such is my outfit, in which there is nothing new; my method of working, however, is, I believe, out of the common.

My aim, as I have said, is not to make a stereoscopic pair of prints, but rather to secure at one exposure two different results —two quarter plate negatives of different

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qualities—and to make use of the better one, perhaps destroying the other. It is for this reason that a double quarter plate camera is employed—one made by Chadwick, who was a strong advocate of the double quarter size for stereoscopic work. The camera allows of two quarter plates being used side by side, a thing the orthodox stereo camera does not permit of. The two quarter plates I use side by side are rarely of the same brand, but of two different makes. Thus, in cases of uncertainty when the use of, say an ordinary plate or a self-screen camera cannot be decided upon one of each is used. One may also use ordinary plates of high and low H. and D. numbers to form a pair, a screened isochromatic and a panchromatic, and many other combinations, the worker selecting the two most likely to give the best results, rather than results which differ widely.

These differences in the sensitive plates, used on the same subject, are combined with the play one has with stops: changes may be rung to any extent. Sometimes—particularly when stops are manipulated to make the exposures required about the same—there is little to choose between the two negatives, but in most cases one is better than the other, and from the better one the necessary enlargements are made.

Further, differences in the quality of a pair of negatives on plates of different makes may be secured, if necessary, by developing with different developers. Most of my most difficult interior subjects are taken on an ordinary plate with a self-screen plate as its bedmate in the dark slide. Pyro-soda is commonly used as the developer for the self-screen plate, and M. Q. or Azol for the ordinary plate. I find the plate combination named the best for architectural "bits" in churches and old buildings, far better, as a rule, than a pair of ordinary plates of different speed numbers, or a pair of like plates used with stops differing but little in their F values. In practice there is not a noticeable difference in plates of the same variety having different H. and D. numbers, unless, of course, the latter differ widely—a fact which speaks volumes for the extraordinary latitude to be found in modern dry plates. It is when using two plates of the same brand—if not of the same speed—that the use of a different deevloper for each comes in handy to give one a choice of negatives.

The choice of plates to make up a pair likely to give two good results depends largely upon the subject to be pictured, for although two perfect negatives are not to be scorned, one only is necessary, as the worker is not making a pair of prints to illustrate an advertisement of a panchromatic plate; he is simply having two chances of taking something where perhaps only one is possible when working in the usual way. And although my best results have been obtained on one or other of a pair made up of a self-screen and an ordinary, some subjects call for a self-screen and an ortho plate with a yellow filter, while others may suggest a self-screen and an unscreened panchromatic, and so on.

The old portrait lenses, as well as the Petzval lantern objectives, are really excellent lenses for difficult architectural "bits." The large apertures permit of easy focussing, and fairly large stops may be used when only the center of the negative is wanted for enlargement. My practice is to get my subject within a 3-inch square marked upon each half of the focussing screen, and let the remainder take care of itself.

This plan of working calls for a double quarter-plate camera, or one of the orthodox type with plates cut to fit, and, as so many workers have stereoscopic cameras lying idle, it may be that my hints may be of service to those who desire to find a use for them, and who, like myself, are sometimes puzzled to know what plate, exposure, or method of development will give the best result.

P. R. S., B. J. of Photography.

An "Always-Ready" Plate Backing

An "always-ready" anti-halation backing in a full sense of the term; the mixture being always ready to hand without becoming dry in the pot, or absorbing an undue proportion of water from the atmosphere, and moreover the plate is ready for exposure immediately; no drying being required, while finally the developer is in no way damaged, so that no wiping-off is required previous to development; nevertheless, if desired, a full view can be had at any stage of the development as a touch

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with a soft brush clears any part of the backing instantly during development, if an undermentioned precaution is taken.

This combination of advantages is realized by taking advantage of the hygrometric and other properties of ox-gall, the ox-gall being used in the form of the purified ox-gall of the pharmacist; additional and incidental advantages are ease and certainty of application, notwithstanding finger marks or like greasy patches on the back of the plate, and the complete elimination of halation under the most trying conditions; the optical union of plate and backing being perfect owing to nearness in refractive index, and the peculiar soap-like viscosity of the mixture.

The purified ox-gall of the British Pharmacopœia (Fel bovinum purificatum) can be obtained as a yellowish-green, viscous mass from any pharmaceutical chemist, or it may be prepared by the following instructions on p. 147 of the 1914 edition of the British Pharmacopœia. Evaporate half a litre of fresh ox-bile to one-fourth of its volume; shake with twice its volume of 90 per cent alcohol. Set aside to clear, filter and evaporate on water bath to the consistency of an extract.

The backing mixture consists of one weight-unit of the purified ox-gall, four weight-units of gum arabic mucilage, and one weight-unit of vegetable black water-color, as sold in a collapsible tube, these being well mixed after the containing pot has been warmed in the water bath for a few minutes. A rather stiff, flat brush, a string or wire across the mouth of the pot for striking off any excess from the brush, and a larger pot to cover the whole closely, complete the equipment for backing, but a cover plate for the backing is desirable. This at best is a plate of matted black glass, with corner pieces of thickish microscopic cover glass, cemented on with Canada balsam, to prevent contact and inconvenient adhesion, but an old negative with four corner-pieces of thick paper gummed on is a substitute. Obviously only one sensitive plate can be used in an ordinary double back under these circumstances, but two sensitive plates may be used in the double slide if a thin sheet of black celluloid is laid on the adhesive backing of each plate and the two celluloid backs are placed together in the slide.

A note on the thin black, flat celluloid, a remarkably useful material in the photographic work-place. Thin celluloid is stained, first green with an alcoholic solution of acid green, then red with an alcoholic solution of magneta, in such ratio as to produce the best of all blacks, a mixed black. After washing in water to remove any soluble remainder of either color, the celluloid is ironed flat between sheets of stout paper.

A very small quantity of the backing is required if the layer is uniform, say four grains for a quarter-plate, and it is seldom or never desirable to apply the backing quite up to the edges of the plate.

Ordinarily the protecting or covering celluloid should be peeled off before the plate is put into the developing solution, and it is more convenient to drop the plate through the developing solution than to put the plate in the dish first and then pour the developer on; as in this latter case the backing is so immediately and uniformly softened that a touch with the finger or a soft brush will clear a place at once, should back views or through viewing be desirable.

There is, however, one case in which it is desirable to leave the protecting celluloid on, or to use an adherent protecting plate at the back, that is to say without the corner-pieces for giving distance. This is when the so-called "Aktinal" system of desensitising and subsequent dayilght development is adopted. (See article "Aktinal," p. 13 of 1912 edition, Cassell's "Cyclopædia of Photography.") In this case the protecting plate or celluloid is of use in preventing the soiling of the desensitising fluid (four per cent potassium iodide solution), which if thus protected may be used for several or many plates in succession.

The developer which I prefer to use, and one which I regard as a near approach to a universal developer, whether for plates or paper, is a rather strong hydroquinone developer with sodium sulphite and sodium carbonate:

Hydroquinone	45 grs.
Cryst. sodium sulphite	2 ozs.
Cryst. sodium carbonite	2 ozs.
Water	5½ ozs.

(Total volume about 8 fluid ozs.)

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This keeps well, has a Watkins factor of about five and I have never found it necessary to add bromides excepting under conditions like those of the "Aktinal" process or the Playertype process; when the film contains two grades of material, each developable, but in different degrees.

Even those professional photographers whose activities may be wholly confined to the studio, would do well to consider the service occasionally rendered by backing. The full lights and shades of a clear white dress cannot be rendered on an unbacked plate, and to copy an engineer's blue print is almost hopeless unless on a backed plate —which should also be orthochromatic.

—Thomas Bolas, B. J. of Photography.

Lantern Slides from Small Negatives

Owners of small cameras of the Ensignette or Vest Pocket Kodak type frequently make contact lantern slides from their negatives because they lack the necessary apparatus for enlarging the image to the standard size. While there is no disadvantage in this, if all the slides in a series are of uniform size, the effect is unpleasant if they have to be shown in conjunction with those of standard dimensions. A simple way of enlarging them is to use the ordinary projection lantern, the only appliance to be provided being a carrier for the small negative. When the length of the draw tube is insufficient to give the necessary distance between negative and lens, it is easy to insert a cardboard tube between the inner and outer tubes, and as the objectives are almost invariably fitted with a rack adjustment, accurate focus can be readily obtained. As the degree of enlargement is small it is advisable to stop down the lens considerably or to insert a translucent screen between the light and condenser. If gaslight plates are used no such modifications would be necessary. As such lanterns are not usually light-tight, it is advisable to fit a large card screen with an aperture for the lens to peep through, in order to prevent stray light from reaching the plate.—B. J. of Photography.

A Long Experience in Method

I have now developed gelatine plates for forty-five years and have followed three systems:

From 1876 to 1894 I used "inspection and judgment" only.

From 1894 to 1910 I used "factorial development" only.

From 1910 to 1921 I used "thermo time development" only.

The first change from inspection to factorial conferred an enormous advance in getting uniformity and obviating errors. The second change from factorial to thermo was taken because I wished to work with tanks and to do without a dark-room light, especially as I am red colour-blind.

Both the factorial and thermo methods have given me uniformity and tolerable certainty, but, to be quite frank, I think that I have secured slightly the largest proportion of "just right" negatives during the time I used factorial development. I have been "let down" several times in the thermo time method by plates or developer being different to what I anticipated, and the method does not give such a clear warning as does the factorial method.

As all this experience was with outdoor subjects, with church and other interiors, and as I have received scores of letters testifying to the success of others with factorial development in their hands, with similar subjects, I think I am justified in disputing Dr. Glover's claim that factorial deveolpment is "not suitable" for outdoor subjects. It is just on this work that it earned whatever reputation it possesses.

—B. J. of Photography.

Perfecting Factorial Development

I have repeatedly pointed out that the one weak point of factorial development could be obviated, and its other great advantages secured, if plate makers would issue with boxes of plates trial slips impressed with light images (in bars) of a standard light-impression from which to take the "first appearance" observation. This should be a standard multiple of the inertia of the plate, and it is a curious advantage that even if the "standard light" of different makers should vary, this light-impression would be the same standard for all if each used the same light to make the impression as was done to make the inertia test. ALFRED WATKINS.

—In British Journal of Photography.

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THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

An Error

In the December number of this magazine was published Wellington's formula for The Borax M. Q. Developer; unfortunately, through a typographical error, the amount of water stated was incorrect, this should read 20 ounces and not 20 grains as there printed; the rest of the formula is correct.

I have just learned that some of the members of the California Camera Club (who took it for granted that 20 grains of water was really a misprint and meant 20 ounces) have been experimenting with this developer and are enthusiastic on the beautiful clearness of the resulting negatives.

For the benefit of new readers this formula is reprinted here:

The Borax-M. Q. Developer

A developer likely to prove popular with amateurs for their hand camera negatives is the following metol-hydrokinone, in which borax replaces the usual alkali. The following formula is recommended by Wellington and published in the photographic hand book, from which I quote. Probably no developer is capable of giving negatives of such fine grain or more completely free from fog or stain. Its advantages are most marked in the development of very small negatives, positives from which are generally produced by enlargement. In such cases the almost grainless quality of the original image is of the highest value. Borax-M. Q. gives negatives of delicate rather than strong gradation, and of beautiful photographic quality. It works best with plates which have been fully exposed.

Borax-M. Q.

Metol	20	grains
Hydrokinone	50	"
Sodium Sulphite(cryst)	200	"
Borax (powdered)	200	"
Water (hot)	20	ounces

Dissolve in the order given, allowing each chemical to be in complete solution before adding the next. This developer keeps almost indefinitely in well-stoppered bottles.

N. B.—All metol-hydrokine developers should be used at a temperature of from 60° to 65°Fahr. Below 60° Fahr. hydrokinone rapidly loses its developing power and at very low temperatures becomes practically inert.

Ralph-Harris & Company, 26-30 Bromfield Street, Boston, Mass., are sole United States agents for the Wellington products, and the "Wellington Photographic Hand Book" may be secured from them, price 35 cents.

Bromide and Gaslight Prints

The following is what "Rajar" has to say on the subject of developing these papers. Our readers will be interested in expert advice and some may gleam a pointer of value.

"What is the best developer for Bromide and Gaslight prints?" There is no doubt that it is the one recommended by the makers of the particular paper used, as they, knowing the exact nature of the emulsion, are able by careful experiments to arrive at a developing formula that will bring out the best qualities of the paper.

Either M.Q. or Amidol may be used with equal success, and we append our own formula with instructions for mixing. The only alterations that should ever be made are, when necessary, to dilute the developer, and to increase the proportion of Potassium Bromide. A well-restrained dilute developer gives fine warm-black colors on the soft grade Gaslight, and a well-restrained normal strength developer is the one most suitable for developing Bromide prints to that greenish color which gives such nice sepias in the Hypo-

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Alum toning bath. In both these cases the exposure must be on the full side, but printers should bear in mind that (excepting in special cases) correct exposure followed by full development (i.e. development carried on until the image ceases to gain in depth) produces pure black images of fine quality especially suitable for Sulphide toning. No useful purpose can be served by unduly prolonging development, indeed it may introduce fog, but the practical printer will know by experience when to stop development. Generally speaking a Bromide print should be fully developed in two minutes, and a Gaslight print (excepting the soft grade) in one minute. The time of appearance of the image is not a reliable guide, as it varies so much according to the quality of the negative used, and the temperature of the developer.

There is one chemical in the developers that calls for special mention, and that is Sodium Sulphite. It is not a good plan to make up a stock-solution of this in bulk (as many Amidol users do) and keep it any length of time as it deteriorates in solution. We therefore advise freshly-made Sulphite solution for all developers. In order to obtain blue-black images on Gaslight paper some workers reduce the porportion of Potassium Bromide, but we do not recommend that less than ten grains be used in twenty ounces of developer.

Metol-Hydrokinone Developer
(Double Strength)

Metol	16 grains	or	2 grammes
Hydrokinone	60 "		7 "
Sodium Sulphite Cryst.	1 oz.	or	55 "
Sodium Carbonate Cryst.	1 oz.	or	55 "
Potassium Bromide	20 grains	or	2 "
Water to make	20 ozs.	or	1 litre

In about 15 ozs. of warm water dissolve the Metol, then add the Hydrokinone and Sulphite, and when dissolved add the Carbonate and Bromide. Make up to 20 ozs. with cold water and bottle off in full well-corked bottles.

For Bromides add equal volume of water — for Gaslight prints use full strength for the Vigorous and Normal grades, but diluted for the Soft grade.

Amidol Developer

Sodium Sulphite	1¼ ozs.	or	60 grammes
Amidol	50 grs.	or	5 "
Potassium Bromide	10 grs.	or	1 "
Water to make	20 ozs.	or	1 litre

In about 18 ozs. of tepid water dissolve the Sulphite, then add the Amidol and Bromide, make up to 20 ozs. and use within three days. Dilute only when developing prints on the soft grade Gaslight paper.

Rubber Solution

The value of rubber solution as a temporary adhesive is not so generally appreciated as it might be. Its great advantage lies in the fact that after it has served its purpose it may be removed by a rub of the finger without leaving any trace of its presence, except that it may have carried away any surface dirt. For fixing masks upon negatives, or negatives upon a larger plate, it is only necessary to apply a few small dabs and press into contact to ensure a firm hold; when done with, a gentle pull will ensure separation without injury. Small originals which have to be copied up to the edges may be fixed upon the easel by its means, the rubber being applied to the easel and the print pressed against the tacky surface. The ordinary solution as sold in tubes for bicycle tire repairs is quite suitable, or "washed sheet" or "masticated" rubber may be dissolved in benzole if a large quantity be required. It may not be amiss to remind non-cycling photographers that a "repair outfit," procurable for a few pence, contains all the materials necessary for repairing the pneumatic fittings of studio and other shutters, as well as leaky rubber gas tubes.—B. J. of Photography.

To Avoid Blisters

This is probably one of the most exasperating experiences that comes to our lot.

There is no doubt that too strong alkali in our developer will cause blisters, for this reason I prefer a developer with no alkali, Amidol is ideal, the color of the print developed with it is a beautiful black, but be sure to use the sulphite quite freshly made, don't work with a stock solution of this salt.

Do not use a too strong hypo fixing bath, make it two ounces of crystals to sixteen ounces of water, if the hypo is too strong blisters may show in the wash water through irregular transfusion.

The wash water and fixing bath should be of the same temperature.

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CLUB NEWS AND NOTES

Club Secretaries and others will oblige by sending us reports for this Department

Advertising Art

An unusually interesting display of current advertising art, including color, black and white, design, pen and ink, wash and pencil will be found in the galleries of the National Arts Club, 119 East Nineteenth Street. The men who planned the exhibition arranged the details, selected the works to be shown, and established the basis of selection, are the men responsible for the production of much of the art work used in advertising.

The basis of selection is the same as that used by juries choosing pictures to be shown at any art exhibition—artistic merit. All pictures hung have been used for advertising purposes. All specimens submitted had been used in advertising. So the pictures hung on these walls and listed in this catalogue represent the collective judgment of the men responsible for art production as to what kind of work should be used in advertising.

It is the belief of the men who compose the Art Directors' Club that artistic excellence is vitally necessary to successful advertising. Two factors are involved in such pictures. One is the thought—the idea—the message—the picture is intended to convey. The other is the manner in which that message is conveyed, the artistic ability of the artist to express that message—simply, directly, effectively and convincingly.

The purpose of this exhibition is threefold. It is intended to set up a standard for the edification and education of all concerned with the physical appearance of advertising. It is intended to dignify the field of business art in the eyes of artists, to encourage the best men to undertake it, and to regard it while undertaking it as the greatest art job in the world. It is intended to show the business world the high standard already attained, and to teach advertisers, those who approve and pay the bills, the value and necessity of good art in advertising to the end of making all advertising more resultful.

Each picture in this collection is the work of the thorough, careful and conscientious artist. Into the making of each design went much consideration. No greater amount of intelligent thinking is expended upon the painting of a mural decoration, a portrait, or an easel picture, than is now devoted to the production of a good design for advertising purposes. More artistic ability is now available for the advertiser's use than he is using—than he even realizes. Thousands of pictures are used every month for advertising purposes. Thousands were submitted for the purpose of this exhibition. Only three hundred were thought good enough from among all the art work of the past year or two. Isolated here the average seems high. Mixed with the inferior and mediocre works which greatly outnumber them in the magazines and newspapers and on billboards and street cars, the impression is that anything is good enough for advertising. The difference between this eclectic showing and the rank and file of advertising is the measure of the advertiser's opportunity.

All these designs have been used by successful advertisers. They were chosen by experienced advertising art directors. They represent the best prevalent practice.

But good as they are, they are not as good as they could be. They are not the best that be done. What is needed is a better atmosphere—a better attitude toward good work—a better understanding of the selling power that can be put into pictured advertising—a less stiff and condescending state of mind on the part of the world's greatest artists—a less intolerant and narrow-minded attitude on the part of the world's greatest advertisers.

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Thirteen years ago the writer arranged the first exhibition of advertising art. It was held in these galleries. There were some good things then, but few compared with now. The significant fact, however, is that the good work then was taken from obscure sources—a color page from a printers' journal advertising ink—the cover of a booklet—an advertisement in an art paper of small circulation. About half of that early show was made up of magazine covers, selected to fill bare walls for lack of enough passably good advertising art. In the present exhibition the exhibits are nearly all national. They are already familiar to everyone who visits this gallery. They have appeared in national mediums, magazines with large circulation, in great newspapers, on posters and in space costing thousands of dollars. This fact suggests the growth of the confidence of the advertiser in better art work.

—E. E. Calkins.

Buffalo Fine Arts Academy

An exhibition of paintings by Nicolas Roerich of Russia is being held at the Albright Art Gallery, and cards were out inviting recipients to meet Professor and Madame Roerich on the occasion of the opening night.

If we are to believe half the reports which crowd our press dispatches as to the horrific doings in Russia even now, and for a long time past, we are forced to the conclusion that both Madame and the Professor are joint owners of a rabbit's foot.

Far better—a lion in the United States than a rodent in Russia, haunted and hunted.

Negro Butler Wins

"Yes sah, ise jes' done beat 900 at the Camera Show!"

All our readers are more or less familiar wtih the John Wanamaker photographic exhibition, it is an annual affair, and very popular. Consequently, it is not surprising that prize pictures at this exhibition always show real merit, the keen rivalry insures that; but the following, from a news item is as unexpected as it is gratifying to us:

Chicago, March 26.—King D. Ganaway, a negro butler on the Chicago Gold Coast, won first prize for his photograph, "The Spirit of Transportation," at the John Wanamaker exhibition at Philadelphia, which will close next week. He had 900 competitors to beat, most of them professionals.

Another picture of his received honorable mention. It is called "Children in the Country," and shows a boy and a girl on a teeter-totter under an old apple tree.

Art Notes

This little booklet to hand, and at the head of the first page we read: "Art Notes —published in the interest of American Art and the Macbeth Gallery." After reading this anouncement, one instinctively experiences a friendly feeling toward the little publication—it is honest.

In its pages we are given news about our artists and their work, and short accounts of art matters in general, also reproductions of some of the paintings on exhibition at the above named gallery. These engravings are well done and add much to the interest of the publication.

Art Notes is the "mouth-piece" of The Macbeth Gallery, 450 Fifth Avenue, New York, and it is intended for circulation among those interested in art matters, and buyers of pictures. But who are the buyers of pictures? In almost every case the answer forthcoming would be, "why the rich of course!" but such is not generally the case, as the following clipping from Art Notes will interestingly show.

A recent editorial in the New York Times regrets that American art should have to depend on the rich for its support. Such a condition would be most regrettable, if true, but, fortunately, it is not true. The writer is under the very general misconception that only rich people buy paintings.

As a matter of fact, the very rich, as a class, neither buy American pictures nor care about them. They do not even know about them. This is particularly true in the East, but even in the West, where the tradition of a salt-water-journey for any picture worth buying, is not so firmly rooted, it is only the occasional person of great wealth who patronizes our living artists.

The Times writer would be more than surprised to know just how many American pictures are bought on the "installment plan," by those who really love them

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but to whom outright payment of the artist's price would be a permanent bar to ownership. It is not too much to say that, so far as our own experience goes, those who can and do pay in full on the receipt of a picture, are decidedly in the minority. One of the first uses of an art dealer is to make possible for the man who really loves a picture to secure it, and pay for it as and when he can. If the artist cannot wait, the dealer advances his share to him, and a good deal of the dealer's "exorbitant" commission is used up in interest on the money borrowed on such accounts.

No, the future of American art is far from being in the hands of the wealthy, and it is well that it is not.

Second National Salon

The Second National Salon of Pictorial Photography, under the direction of The Buffalo Camera Club, has come to a close and the general opinion marks it a success. Perhaps there was nothing startlingly original, but there is visible a steady and sure advance in the average work of exhibitors.

This is most gratifying, as it means the greatest good to the greatest number. We all like to meet the work of—the one man —it sets the pace for us, but these types are few, more especially these days, where all workers are keyed up and wide awake.

In the excellent catalogue got up by this Club, we have five illustrations, of which the most striking is "Pennsylvania Station—New York," by Dr. D. P. Ruzicka of that city. This is an admirable piece of work. There is a fine sense of space in the middle distance, and the hurrying crowd of little humans adds grandeur to the lofty arch; making man view with pride the work of fellow man.

Probably many photographers would not look to a railroad station as being a promising field for pictorial subject, but Dr. Ruzicka shows no less than six different views of the Pennsylvania station in this exhibition.

Another reproduction shows a view of Gloucester Harbor, by E. I. McPhail of Buffalo. This harbor has long served the painters and it is only natural the photographers also, should find an endless amount of interest for their cameras. McPhail's picture should be popular as we have a familiar scene simply treated.

"The Angelus of the Dance," by Edward R. Dickson, New York City, is an excellent example of photographic group work, the eleven figures shown and the masterly way the artist has handled them is greatly to his credit; the whole effect is beautifully decorative.

California is represented by such well known workers as Fred R. Archer, Los Angeles; John Paul Edwards, San Francisco; Louis Fleckenstein, Los Angeles; and Arthur F. Kales, Los Angeles; all this is very gratifying.

Dark Room Club

At No. 1207 Chestnut Street, Milwaukee, Wis., is organized a dark room club with the fololwing officers elected: P. Deneen, president; John H. Becker, vice-president; Robt. Meder, librarian; Albert Gaerlitz, secretary.

We presume this is the title for a new camera club, and we have been asked to offer some suggestions that might be useful. At the present moment we can only think of two. The first one would be to get in touch with some live camera club and through its secretary secure the information needed. We would recommend the California Camera Club for a start; this is a well established club and a very successful one. This club manages somehow to appoint live committees to look after its various undertakings and its social committee appears to be a particularly live one, for members have a variety of social gatherings and outings provided for them.

Another feature, which can be made useful under certain conditions is the blackboard, or something similar. Any member may, if he or she chooses, hang up their pictures for criticism by other members of the organization.

Members criticising such pictures must sign their names in full, (initials don't go), to such criticisms offered. And above the board should be plainly lettered something to this effect: "Criticise the pictures only." This is done to check the "funny man," if he is checkable. Where the above idea is carried out in good faith there is much to recommend it, otherwise it will prove a failure.

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INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davis, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

To Our Members—Greetings

Probably some members of the I. P. A., contributors to our circulating albums and also members who are not at present contributing, would like some information with regard to the management of a circulating album.

Here in New York State with Mr. Charles F. Rice director, we circulate an album of twenty-four prints by ten contributors; the sizes of the prints are 3¼4¼ up to 8x10, and three of these are in colors. Accompanying the album, but under separate cover, is a criticism sheet, and this contains the data of each print under corresponding number.

Each recipient of the album is entitled to retain it two days, and he is expected to write a constructive critique applicable to the pictures, on the sheet provided. This practice has met with much approval by the recipients. Accompanying our album alluded to, was a loan album of forty prints by an English club, it was well worth seeing, and we reciprocated with another album. Is there a pleasanter source of advancement and self-education?

Come on, you fellow members of the I. P. A.! Send your Director several of your best prints, and ask him to circulate an album for you, or write me direct for information.

I hope every State Director will give me the number of members on his route list—how often the album circulates and date last issued. I should also like to know if any would consider merging two or more States to make a larger album list, and lastly I would appreciate any suggestions for the benefit of the album or service, and thereby encourage enthusiasm.

I will be pleased to interchange albums among States with those Directors desiring such an exchange; here in New York State, two exchanges on a temporary loan have been made with our British co-workers.

Let us make 1921, a year of albums of higher quality, this can be done by the hearty co-operation of our State Directors.

Sincerely yours,

LOUIS R. MURRAY,

Chief Album Director I. P. A.

Ogdensburg, N. Y.

NEW MEMBERS

4915—Frank E. Green, 14 Kimball Ave., Pawtucket, R. I.
3½x7, glossy, Ago or Velox, of seashore, country life, etc.; for mountain views, canyon views, National park views or any stereoscopic views outdoors showing a marked stereoscopic effect. Class 1.

4916—Jos. Ernest Dionne, P. O. Box 58, Letellier, Manitoba, Canada.
Class 3.

4917—Henry J. Rust, Box 683, Coeur d'Aleur, Idaho.
4x5 and 5x7, single weight, glossy and semi-matte of natural history, birds and nests, animals and plants; for the same. I desire to exchange prints and lantern slides only. Class 1.

4918—Robert M. Riculfi, Box 641 Albuquerque, New Mexico.
3¼x4¼ or 8x10 enlargements, Haloid, Azo, W. & WB. B., of Navajo, Zoni and Apache, Indians, squaws and papooses, animals and birds; for animals, birds, pictorials or anything of merit. Class 1.

4919—Mrs. M. E. Taylor, P. O. Box 298, Garrettsville, Ohio.
Class 2.

4920—B. W. Johnson, Owatonna, Minn.
Class 2.

4921—Carrol B. Nellette, Division of Photography, Pennsylvania State College, State College, Pa.
3¼x4¼ to 16x20, D. O. P., platinum and bromoil, of portraits, figure studies and landscapes; for landscapes, nudes, good portraits and figure studies and marines. Class 1.

4922—W. H. Burwell, 513 Santa Fe Ave., La Junta, Colorado.
2¼x3¼, developing paper, glossy and matte, of still life, school scenes, no scenery subjects at

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present; for anything of interest, mountain and ocean views especially. Class 1.

4923—Lawrence B. Fitch, Box 2 Sta. A, Johnsonburg, Penn.
3¼x5½ or 5x7, Azo, of views; for anything of general interest. I desire to exchange views and post cards. Class 1.

4924—D. H. Rene, 509 Kahl Bldg., Davenport, Iowa. Class 2.

4925—Dan O. Smith, 750 Pierce St., Gary, Ind.
3¼x5½ and 5x7, Azo E grade, of Indiana sand dunes, camping, and misc.; for anything of general interest. Class 1.

4926—Elmer O. Underwood, R. D. 1, Box 34, Dufur, Oregon.
Class 2.

RENEWALS

1572—Harry E. Bishop, 3344 Michigan Ave., Chicago, Ill.
Class 2.

2776—L. A. Sneary, 2822 Espy Ave., Pittsburgh, Pa.
3¼x5¼ to 5x7, of things characteristic of locality; lantern slides. Class 1.

4107—Frank Patterson, P. O. Box 721, Medford, Oregon.
All sizes, of nudes, lantern slides of Western scenery; for the same. Class 1.

4435—W. M. Keck, Princeville, Ill.

4549—Fred Goodin, Covington, Ind.
Up to 5x7 and enlargements 14x16, developing, of good scenery, bathing girls, nudes and flower studies; for the same. Class 1.

4567—G. W. Johnson, 30 Mitchell St., Jackson, Ohio. Class 3.

4718—T. G. Duvall, 753 Pacific Electric Bldg., Los Angeles, Cal.
Class 1.

4719—Lewis F. Stout, Wapakoneta, Ohio.

CHANGE OF ADDRESS

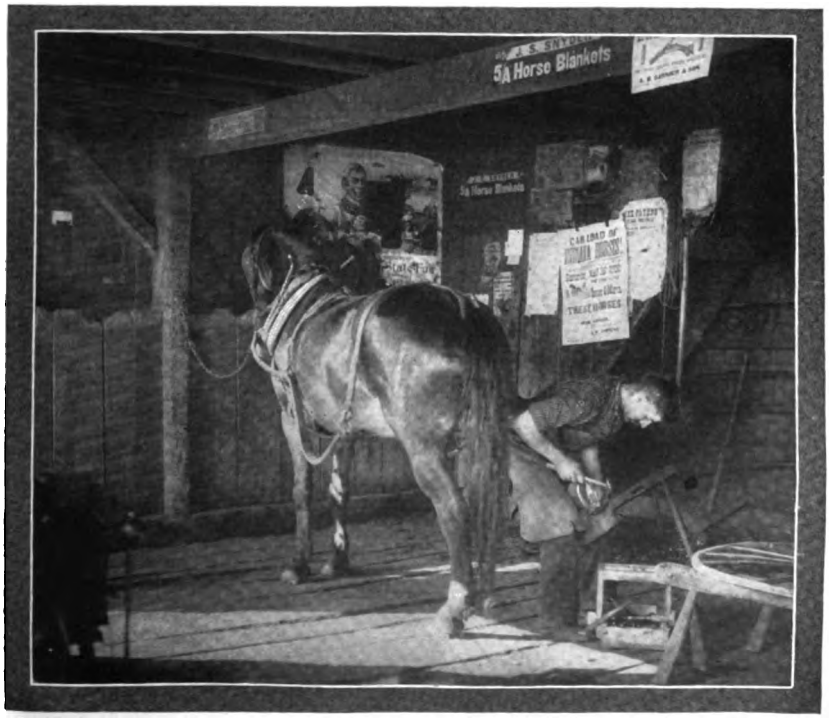
4904—A. V. Stubenrauch, 3120 Lewiston Ave., Berkeley, Cal.
(Was 15 Wright Bldg., Berkeley, Cal.)

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.
Colorado—H. E. High, 1023 Champa St., Denver.
Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
Iowa—Harry B. Nolte, Algona.
Kansas—H. H. Gill, Hays City.
Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
Missouri—J. F. Peters, Room 210 Union Station, St. Louis.
New York—Louis R. Murray, 927 Ford Street, Ogdensburg.
Oregon—F. L. Derby, La Fayette.
Texas—Emmett L. Lovett, care Southern Electric Company of Texas, Wichita Falls.

ALBUM DIRECTORS

Alabama—Richard Hines, Jr., Barton Academy Bldg., Mobile.
California—W. E. Thomson, 3211 School Street, Fruitvale.
Colorado—O. E. Aultman, Plested Bldg., Trinidad.
Connecticut—Harry E. Carpenter, 389 Remington Ave., Bridgeport.
Florida—Capt. E. S. Coutant, Lock Box 73, Stuart.
Georgia—L. O. Surles, P. O. Box 434, Cuthbert.
Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
Illinois—George A. Price, Box 286, Champaign.
Indiana—H. E. Bishop, 551 E. 40th St., Indianapolis.
Iowa—C. W. Parker, Mapleton.
Maryland—E. G. Hooper, 218 East 20 Street, Baltimore.
Massachusetts—John Mardon, 10 High St., Boston.
Michigan—W. E. Ziegenfuss, M. D., 171 Richton St., Detroit.
Minnesota—Leonard A. Williams, 622 2nd Avenue South, St. Cloud.
Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.
New Jersey—Arthur H. Farrow, 51 Richelieu Terrace, Newark.
New York—Charles F. Rice, P. O. Box 517, Mamaroneck.



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NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

Reported by William Wolff

Colman Schwartz has left Howland & Dewey Co., Los Angeles, and is now in his Pomona store. Good luck, Colman.

Miss Hall, who for a number of years had charge of H. A. Taylor's San Diego Art Shop, was married in Riverside, April 18th. Mr. Taylor motored up from Coronado to attend the happy event. Greetings to the bride.

Listen, dealers, have you seen the Milner Light Gauges? No? Better write Hirsch & Kaye, distributors for Pacific Coast, today.

Dorman Bros. of Bakersfield have a new Stephens car.

E. M. Hammond of Porterville was ill with grippe. He is again about attending to his studio.

Mrs. C. C. King of Tulare is in Los Angeles taking a much needed vacation.

H. C. Jensen of Selma is busy with school work.

Leo Drossel was in Fresno recently and reports mount business very good. He is on his way to Birmingham, Ala.

F. C. Sluffert of Modecto has given up portrait business. He is just doing amateur finishing and has a line of stationery, etc.

Carl Broden of Modesto is kept busy between his studio and ranch.

Jos. Thullen, artist, photographer of Merced, is very busy in Fresno and has a contract to make all the floats for Raisin Day celebration.

Second Anuual Exhibition

Announcement has just been made that the dates for the Second Annual Exhibition of Pictorial Photography, to be held next fall in the Frederick & Nelson Auditorium, Seattle, Washington, have been set for November 1 to 12, inclusive.

This competitive exhibition was inaugurated last fall there being 1100 entries, from more than forty states, while Canada and several foreign countries were represented. Last year the competition was limited to the work of amateurs, but this year restriction has been removed and invitation extended to all pictorial photographers, whatever their status and wherever located, to send in their prints.

There are no separate classifications in this competition, portraits, studies in still life, landscapes—all types—entering on an equal basis, the only restriction being that hand colored photographs are barred. The board of judges will be selected from among the most prominent photographers and painters in the Northwest. The prizes offered are: first prize, $100; second prize, $75; third prize, $50; five prives of $10 each and ten prizes of $5 each. The exhibition will be held in the Auditorium of the Frederick & Nelson store, a large hall especially well adapted to this purpose.

Thousands of visitors inspected the exhibit last year, it being free to the public. The first prize was awarded to a photograph entered from Brooklyn, New York, but several entries from the West ranked high among the prize-winners.

The object of the exhibition is to encourage the cultivation of photographic art in the Northwest, both by offering artists of this section a chance to show their work in competition and giving them a chance to compare thier own productions with the best of other sections of the world.

On Camera Clubs

A booklet entitled "The Camera Club, Its Organization and Management," has just been published. It is written by Louis F. Bucher, Secretary of Camera Club, (Newark, N. J.,) also Secretary of Associated Camera Clubs of America.

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This work represents Mr. Bucher's experience with the acknowledged assistance received from prominent members of live clubs in various parts of the country; and we were safe in assuming the contents were reliable and also enlightening, for such we found after interested perusal.

There should be a camera club in every town; is there one in your town? There surely must be enough amateur photographers there to warrant it, for amateur photographers are to be met with everywhere.

What are the advantages of a camera club? Mr. Bucher is evidently a believer in the adage, "two heads are better than one," and there is no doubt we can learn more by association than by isolation. It is so much easier to have a friend explain and show you how to do a thing, than be forced to gather all your information from a book, "all by your lonely;" it is much pleasanter, too.

Then there is a great advantage of having the use of club equipment. Most of us work with small cameras now; think of the blessing of having a modern outfit to enlarge by. Many of us would not feel justified perhaps in incurring that expense in apparatus for occasional use, and this is only one item.

The forming of a club as Mr. Bucher tells us, is not an easy going matter; it takes effort and enthusiasm on the part of a few, and these few must set the example with persistency, if worth while results are to be hoped for.

In this booklet we have short chapters on all the essential subjects; Organization Constitution and By-Laws, Plan of Management, Good Fellowship and Co-operation, Sociability, Demonstrations, In General, In Conclusion. We are forced to believe any camera club may be launched and maintained by adhering to the advice given by Mr. Bucher.

Is there a camera club in your town? If not, and some of you think there should be, write to Mr. Louis F. Bucher, Secretary of the Association Camera Clubs of America, 878 Broad Street, Newark, N. J., for a copy of that booklet, "The Camera Club." Organizers of clubs need speculate no longer as to ways and means.

The Contessa-Nettel Line

G. Gennert, manufacturer and importer of photographic apparatus and supplies, New York, has been appointed as sole agent for these cameras in the United States, Canada and Mexico.

There are already forty different cameras in the series with many new ones in preparation which were shown to Mr. Gennert during his visit to the Contessa-Nettel works at Stuttgart. These will be introduced here this season.

The new models include a very attractive line of film cameras embodying novel features and equipment. Examples of the Piccolette and the Cocarette have already reached Gennert, the former is a vest-pocket camera with special features for precision and efficiency; the latter is an elaboration of the same type in sizes 2¼x3¼ and 2½x4¼, with other sizes to be added. Many of these models are made in teakwood finish, and also in the familiar leather covered form.

The focal-plane shutter exclusively fitted to the Contessa-Nettel Focal Plane Cameras deserve mention. This shutter is provided with an ingenious breaking mechanism, whose mechanical construction is perfect, ensuring freedom from jar and strain.

Most of these cameras are fitted with lenses manufactured by Carl Zeiss of Jena; other models, with lenses of the well known names of Steinheil and Hugo Meyer & Co., and these offer excellent value.

We are asked to assure the trade that the business in these cameras will be restricted to legitimate dealers.

Book No. 40

This book now accompanies the No. 2 Harvey Exposure Meter, and gives definite instructions as to the proper development of 3 slow and 2 fast plates, with suggestions for others.

Various details of proper dark room work are given to call attention to many of the causes of poor development; and the publisher claims that no meter or book gives such definite instructions as to development; it should prove a great aid to anyone interested in plate development.

This book, No. 40, has among its many good points, one of brevity. Its contents

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is an expert and qualified to say just how a "press" camera should be built. The actual construction was undertaken by the Sharmon Camera Works, 5 Kearny Street, San Francisco, and they are prepared to undertake orders for cameras of this and other types. Readers will find the Sharmon advertisement on another page.

R. W. K. Photo-Prnter

This all metal-photo-printer is "Sold to Satisfy You"; it is a new thing, yet there are over 1200 now in use.

Any amateur looking for a reliable printing machine should send for a prospectus and familiarize himself with the good points of this photo-printer. The price is $8.50 and it would not take long to get one's money back by doing one's own printing quickly, neatly and well.

What do you spend in six months to have the prints made at your drug store and are they as good as you expected them to be? Probably not. Figure out the cost and the quality and you will be surprised —what is the answer?

The R. W. K. Photo-Printer will make perfect prints from negatives 6½x8½ inches or smaller and this size will also suit most professionals. It has many advantages and is very compact. Its compensating spring hinge for the pressure plate automatically accommodates itself to the varying thickness of the negatives, masks, etc., and provides equal pressure, assuring uniform contact.

The fact that the printing surface is flush with the upper part of the printing box enables you to print from portions of large negatives. Also roll films can be handled to advantage.

Contact is made by lowering the pressure plate, which cuts out the red light and switches on the white, this action is reversed when the pressure plate is lifted.

The pressure plate is made of plate glass and is mounted in a steel frame that is cut out on the back, permitting the operator to see through the paper and negative and he is able to insert a card through a slot on the right side of the box to vignette, or shade certain thin portions of the negative much in the same way that enlargers constantly have recourse to and the eye can follow the movement through the transparent pressure back.

Two incandescent lamps are supplied; one an 8 c. p. ruby bulb, the other a 40 Watt 115 Volt lamp, which gives sufficient light to print from ordinary negatives, in two to five seconds. The light is well diffused by a sheet of ground glass, four inches below printing surface. The flexible electric cord, plug to fit standard sockets, in short, everything is complete and comes with the machine.

Address your inquiries to the Manufacturer R. W. Kittredge Company, 812 W. Superior St., Chicago, Ill. See advertisement on another page.

WITH THE CAMERA

Notes From the Illinois College of Photography, and the Bissell College of Photo-Engraving, Effingham, Ill.

It is quite a distance from Bombay, India, to Effingham, Illinois, "The Heart of the United States," yet Mr. N. G. Devare of the former city has traveled the many miles to enroll in the I. C. P. Needless to say, he likes this country.

Carroll S. Simcoe was a member of the Engraving Class of 1920. He now informs us he is successfully conducting an engraving business of his own. He has our best wishes for continued success.

A young lady retoucher recently arrived at the home of Mr. and Mrs. Victor D. Cylkowski in Chicago. Mr. Cylkowski, who will be remembered as an I. C. P. student, is now connected with one of the largest studios in the "Windy City".

The students a short time ago, enjoyed a talk given at Assembly by Reginald Hanscomb, an I. C. P. alumnus. Mr. Hanscomb is now representing the Defender Photo Supply Co.

We are informed that Mr. and Mrs. L. C. Oakes, who completed their courses here several months ago, have opened a studio in Oakley, Kansas, and already have a promising business.

The Faculty and quite a number of the students will attend the Annual Convention of the Photographers' Association of America, which will be held in Buffalo, New York, July 18th to 23rd.

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You don't re-develop this paper—the rich, warm green that puts added realism in your landscape and marine pictures is secured by methods very similar to those employed with Velox—and just as simple.

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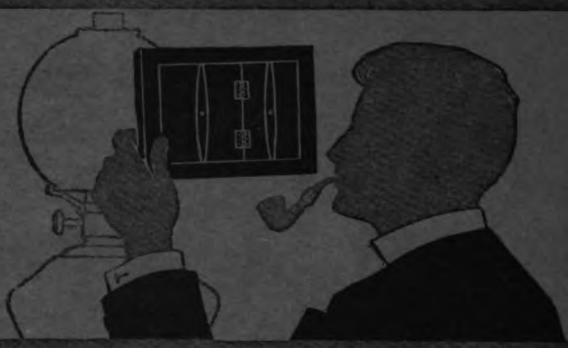

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VELOX

is simply this—it's a paper
that will give you
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Vol. XXVIII No. 3 MARCH, 1921 (Issued May 23, 1921)

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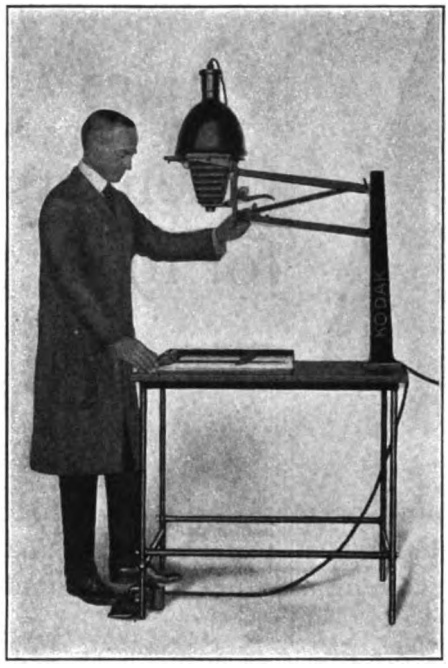

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An instrument that simplifies the making of large prints from small negatives.

The Kodak Projection Printer is not merely an improved piece of apparatus. It embodies an entirely new idea—revolutionizes enlarging and changes it into a simple printing process—projection printing.

The idea is based on the scientific and mechanical accuracy of the instrument itself, and the process is simple and easy. Slip a negative in the negative holder and a sheet of paper in the paper holder, press a foot switch and print.

The image is always in focus—move the camera up or down and the image expands or shrinks but always remains hair sharp, so accurate is the automatic focusing mechanism.

The Printer will take negatives 3¼ x 5½, 4 x 5 or smaller and will make prints up to 24 x 32 inches.

Kodak Projection Printer, complete with Kodak Projection Anastigmat Lens *f*.6.3 and 100 Watt Stereopticon Mazda Lamp, is priced at $200.00.

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CONTEST CLOSES FEBRUARY 1, 1922

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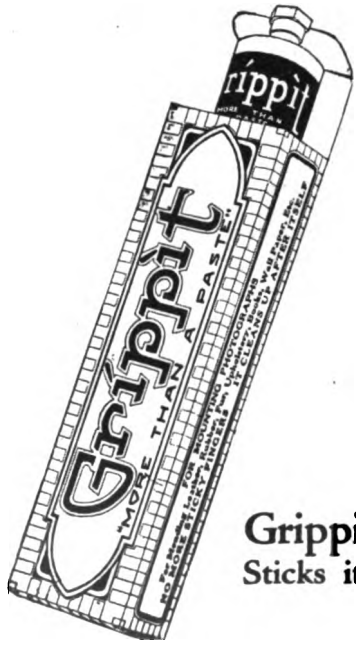

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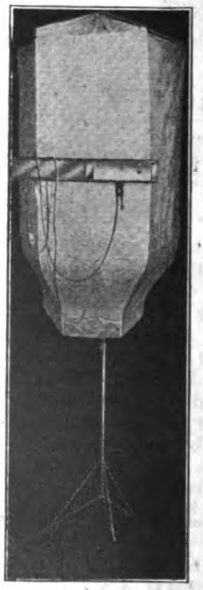

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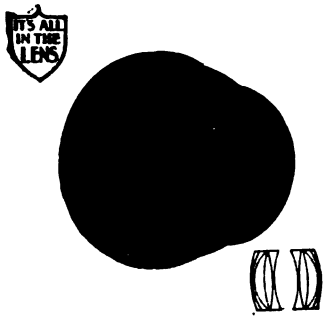

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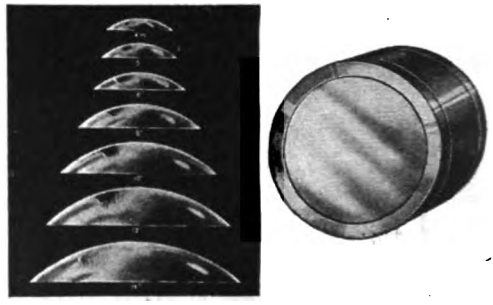

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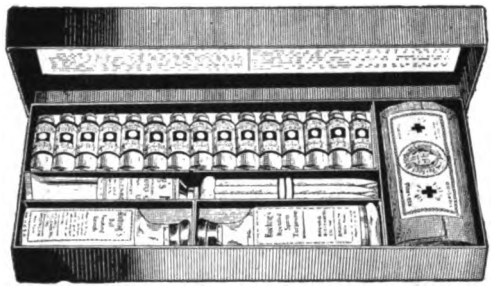

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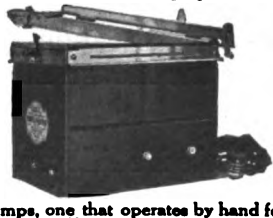

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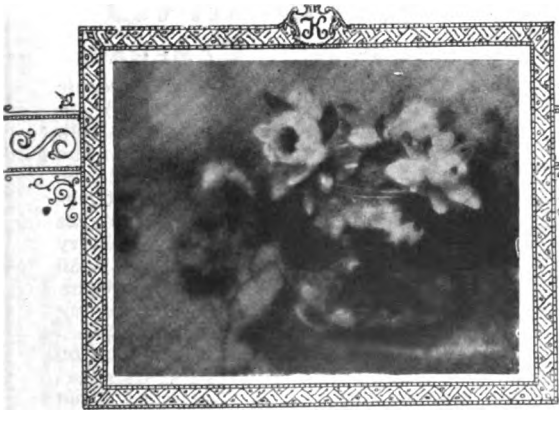

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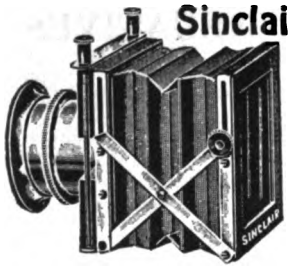

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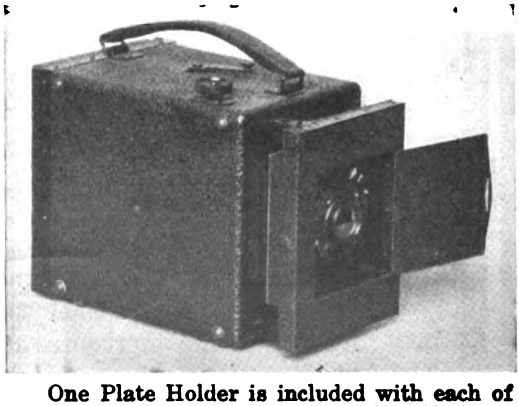

HESS-IVES CAMERAS

100—3¼x5½ Hess-Ives Telescopic Box Cameras, Color Corrected 6½-in. focus Symmetrical Lens, Wollensak Automatic Shutter, working from one second to 1/100th, with cable release, covered with fine grain leather. Original price when sold as color cameras —$55.00. We sell them as ordinary cameras, price $12.50

100—3¼x4¼ Hess-Ives Box Cameras, Color Corrected Lens in focusing mount, Wollensak Automatic Shutter $10.00

90—3¼x4¼ Hess-Ives Box Cameras Single Lens, T. I. B. Shutter..... $6.00

One Plate Holder is included with each of the above Cameras.
FILM PACK ADAPTERS: 3¼x4¼, $1.50 each; 3½x5½, $2.00 each.

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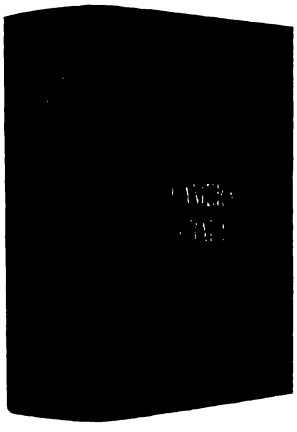

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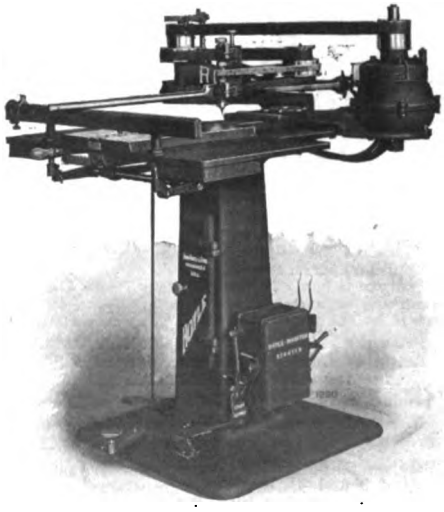

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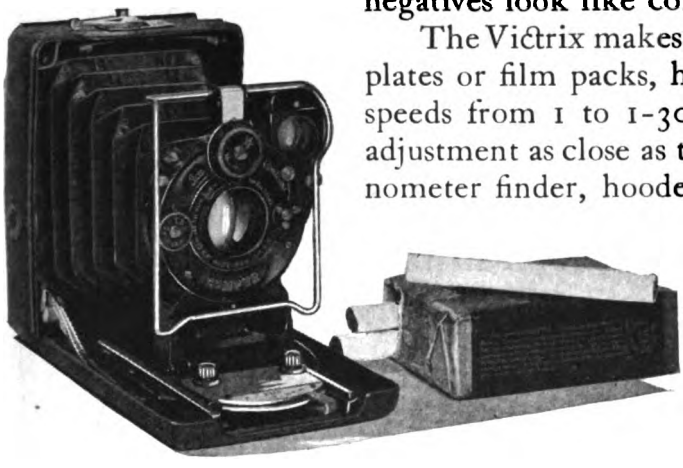

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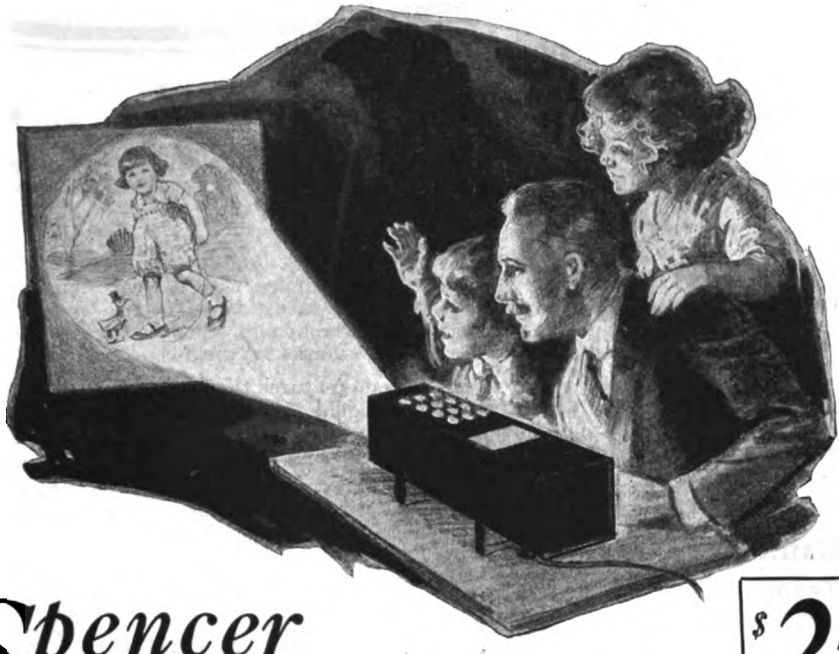

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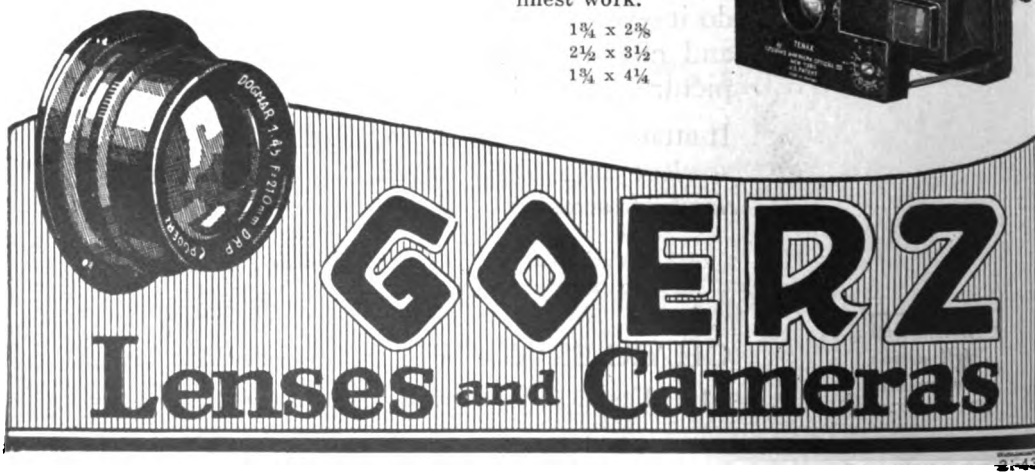

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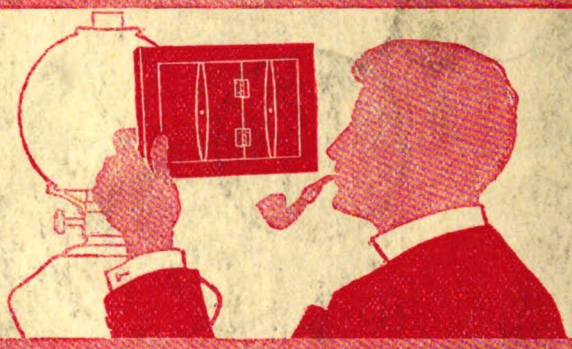

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